REFERRALS TO CLINICAL PSYCHOLOGISTS :

EFFECTS

of the

PERCEIVED IDENTITY

of the

REFERRAL SOURCE

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MEMORANDUM

Statement of originality

The research reported in this sub-thesis has been carried out independently, and, apart from consultation with the individuals mentioned in the acknowledgments, without collaboration.

Kate Barrelle.

Kate Barrelle

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This work is dedicated to my late grandmother, Ruth Claussen. An inspiration always.

ABSTRACT

This research investigated the effects of the perceived identity of a referral source upon practicing clinical psychologists' judgements of referral information. Literature about the historic 'actuarial versus clinical approach' debate on clinical judgement and decision making is reviewed, as is contemporary social persuasion and influence literature. Two theoretically driven hypotheses were derived : (i) the comparative context of a referral source will have an impact on the degree of identification of a recipient clinician with that source; and (ii) the degree of identification a clinician has with a referring agency will have a positive impact on that clinician's acceptance of the referral information. These hypotheses were tested via a self-categorisation theory framework (Turner, 1991; Turner, Hogg, Oakes, Reicher & Wetherell, 1987). Both hypotheses were supported by the results of this research. Implications of these findings are discussed, particularly with regard to the 'actuarial versus clinical approach' debate on clinical judgement and decision making.

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REFERRALS TO CLINICAL PSYCHOLOGISTS : EFFECTS OF THE PERCEIVED IDENTITY OF THE REFERRAL SOURCE

Clinical psychologists are health care professionals who work predominantly, but not exclusively, in the field of mental health. Common functions of clinical psychologists include psychological assessment and evaluation, psychological treatment, training of other professional staff, involvement in the development of health service policy, and research. Clinical psychologists are clinicians, scientists, and professionals. Central to each of their activities, and to each of their roles, are the processes of reasoning, inference, and judgement.

Judgement is exercised continually by clinical psychologists in the daily processes of professional decision making. Debate surrounding the accuracy of clinical judgement is embodied in the historical clinical-actuarial approach dichotomy. The actuarial approach is quantitative, statistical, and emphasises objectivity. In contrast, the clinical approach is more qualitative, intuitive and subjective - emphasising individually oriented interpretation and judgement. From a review of this literature, it is concluded that the clinical approach, although open to the biases and heuristics of information processing, is a realistic account of the processes involved in clinical judgement and interpretation.

Potential information processing biases arising not only from the information on which clinical judgements are based, but also from the source of that information, are discussed. In contemporary psychological practice it is increasingly the case that a referral is the first information a clinician receives about a potential client. A thorough examination of the literature revealed no research specifically investigating interpretation of information from such third parties in clinical contexts. However, the study of social influence within social psychology provides relevant evidence of the

effects of the source of information.

In this study it is suggested that the source of information forms a context in light of which the information is subsequently interpreted by any individual clinician. It has been established that the extent to which an individual identifies with a source effects the extent to which information from that source is considered valid and is subsequently accepted (Clark & Maass, 1988a; Clark & Maass, 1988b; David & Turner, 1992; Mackie, 1986; Mills & Aronson, 1965). It is hypothesised that the extent to which clinical psychologists identify with a referral source will influence the extent to which they accept the information in that referral. That is, the relationship between the source and the recipient of client information will positively impact upon the recipient clinician's subsequent acceptance of that information. Further, the degree to which an individual clinician identifies with a constant referral source is predicted to vary with the context in which that referral is presented. These hypotheses are tested using registered clinical psychologists as participants.

Judgement in clinical psychological practice

Clinical psychologists are professionals who use their powers of judgement implicitly and explicitly in almost everything they do. In the therapeutic setting, a clinical psychologist exercises her or his judgement every day. Contact between a clinical psychologist and a potential client is generally initiated by some form of referral. This is followed by an initial/assessment interview, and only then, if at all, subsequent therapy and/or counselling. Judgements must be made by the clinician regarding the acceptability of the referral, the authenticity of the client and their presentation, as well as a formulation of the client's problem.

Psychological assessment, evaluation, and treatment require ongoing clinical judgements. Psychological assessment is the "use of psychological methods and

principles to gain better understanding of psychological attributes and problems" (Hall & Marzillier, 1992, p1). In many circumstances it is difficult to evaluate an individual's performance independent of the clinician who conducted the assessment. This is particularly the case with some tests, where simply to score the response is to impose an interpretation (for example, projective tests). It is also difficult to distinguish between the assessment data and the clinician's input in unstructured interviews, where the very questions asked are a product of the clinician's judgement and opinion. This notion is pragmatically supported by the fact that a number of psychological tests may only be administered by qualified psychologists (Jenkinson, 1991).

Psychological evaluation or interpretation is arguably the most important activity conducted by the clinician. "Without interpretation, the clinician is at best a technician who must record whatever is presented him [sic] and then hope that some of the data will appear in actuarial tables or cookbooks so that he can find out what to do next" (Levy, 1963, pviii, cited in Phares, 1984, p336). One of the most widely used guides to mental disorders is the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, (DSM-IV). The specific diagnostic criteria of DSM-IV were intended to serve as guidelines to be "informed by clinical judgement, and are not meant to be used in a cookbook fashion" (American Psychological Association, 1994, pxxiii). Even this extensively used diagnostic guide demands the use of clinical judgement.

Implementation and/or recommendation of psychological treatment also involves considerable judgement. For example, in the treatment of anxieties, there have been long established traditions of therapy of both behavioural, and of psychodynamic orientations. The treatment an individual will receive for their anxiety disorder will depend very much on the judgement of the clinician, as well as on the clinician's theoretical orientation, which can be viewed as simply a long-term commitment to an earlier judgement.

Clinical judgement and decision making

There has been a long history of research on clinical judgement and decision making. The focus of such research in the 1960's and 1970's was on judgemental accuracy and modelling judgement processes (Kleinmutz, 1968; Meehl, 1954; Slovic & Lichtenstein, 1971). There has been much debate over the nature of clinical prediction. The actuarial and the clinical approach to clinical prediction are distinct and diametrically opposed. More recent work has concentrated on identifying judgemental heuristics and biases (Turk et al, 1988).

The actuarial approach to clinical judgement and decision making

The actuarial approach is quantitative, statistical, emphasises objectivity, and presumably enjoys a particular clarity of implementation. In this approach to clinical (or any type of) prediction, "the human judge is eliminated and conclusions rest solely on empirically established relations between data and the conditions" (Dawes, Faust & Meehl, 1989, p1668). Actuarial interpretations are automatic and based on empirically pre-established relationships. The process of prediction involves quantifying (coding) data and submitting them to a predictive formula. There is no individual interpretation or judgement involved. The same client information presented to any number of clinicians ought to, with use of an actuarial approach, result in the same prediction every time.

Proponents of the actuarial approach hold that, because of the uncertain nature of clinical judgements, such judgements ought to be scientifically confronted :

> "Over the past few hundred years languages have been developed for collecting and interpreting evidence (statistics), dealing with uncertainty (probability theory), synthesising evidence and

estimating outcomes (mathematics), and making decisions (economics and decision theory). These languages are not currently learned by most clinical policy makers; they should be" (Eddy, 1993, p58).

Critics label the actuarial method of prediction and judgement as mechanical, artificial, and sterile in nature. There are concerns that use of such methods miss individual 'exceptions to the rule', cannot distinguish idiosyncrasies, and damage, if not destroy the essential therapeutic relationship between the clinician and the client.

The clinical approach to clinical judgement and decision making

The clinical approach, on the other hand, is more subjective, experiential, and intuitive. It is held out as a method that can offer useful interpretations, and the emphasis is on the application of judgement to the individual client. Those opposed to the clinical method of prediction refer to it as mystical, primitive, unscientific and unreliable. Adherents of the clinical approach, however, view clinical wisdom as the ability to process a mass of client information without (sole) use of formal statistical analyses. Schön (1993) for example, holds that much of clinical expertise can only be revealed 'in action' :

"The practitioner allows himself [sic] to experience surprise, puzzlement, or confusion in a situation which he finds uncertain or unique. He reflects on the phenomenon before him, and on the prior understandings which have been implicit in his behaviour. He carries out an experiment which serves to generate both a new understanding of the phenomenon and a change in the situation" (Schön, 1993, p75-76).

A 'superior' approach?

Prima facie, it is the case that actuarial prediction is approximately equal or superior to

clinical prediction. This has been demonstrated in studies investigating the prediction of academic success (MacMann, Barnett, & Lombard, 1989; Sarbin, 1943, cited in Phares, 1984), vocational performance (Hart, Webster, & Menzies, 1993), parole violations (Burgess, 1928, cited in Phares, 1984), and psychiatric diagnosis (Goldberg, 1965, 1968).

Goldberg (1965, 1968), for example, studied the relative success of the actuarial and clinical approaches in distinguishing between 'neurosis' and 'psychosis', based on the Minnesota Multiphasic Personality Inventory (MMPI) (McKinley, Hathaway & Meehl, 1948). The MMPI is a 550 item true-false personality inventory originally intended as an aid for psychiatric diagnosis. An actuarial decision rule was derived to distinguish between the two conditions : the sum of two of the scales of the MMPI were subtracted from the sum of three other MMPI scales. A resultant score below 45 resulted in a diagnosis of neurosis, and a score equal to or above 45 earned the patient a diagnosis of psychotic. This became known as The Goldberg Rule. A total of 886 new MMPI profiles were then subjected to actuarial and clinical analysis. On average, 29 judges (with MMPI experience varying from extensive to none) correctly classified 62% of these patients. Application of The Goldberg Rule (ie. the actuarial approach) achieved a 70% success rate. Even with additional training, only one of the 29 judges equalled the accuracy rate of The Goldberg Rule.

Closer inspection of these types of studies reveals that the predicted outcomes were specific and objective, involved large heterogeneous samples, and had minimal focus on individual cases. In the case of The Goldberg Rule, it is interesting to also note the high intercorrelation between the two clinical scales of the MMPI forming the independent measure of outcome. The correlation between the 'neurosis' and the 'psychosis' scales is commonly in the 0.70's (Gregory, 1992). This reflects item overlap between the scales, and suggests that these two scales are similar and not independent. That the average, and the best classification rates of prediction, were

only 8% and 3% lower than the actuarial classification rates, of a close differential diagnosis (Goldberg, 1965, 1968), indicates a lesser discrepancy between the two types of prediction than the literature advocating the actuarial approach would suggest.

Irrespective of whether actuarial prediction is more accurate than clinical prediction, there is strong resistance to the notion of displacing trained clinicians, even if only for the assessment stages of clinical treatment. Actuarial interpretation of information is rarely used, even when of demonstrated value (Dawes, Faust & Meehl, 1989). Cohen, Sargent & Sechrest (1986) surveyed 30 psychologists with an average of nine years experience. Approximately 30% and 40% of these psychologists stated that empirical research and general literature, respectively, did not affect their work. In another study of 416 intake evaluations at a Community Mental Health Centre, only one treatment rationale was based explicitly on research (O'Donohue, Curtis & Fisher, 1986).

It is interesting to note clients' expectations, preferences and beliefs regarding good treatment decisions. When given a choice of five methods of clinical decision making (intuition, research, therapist's informal successful experience, professional recommendation to the therapist, and no rational), clients rated their therapist's informal successful experience, and use of research as most favourable (O'Donohue, Fisher, Plaud & Link, 1989). The same clients believed their therapists would rate the same methods as most preferable for making treatment decisions.

Accepting the evidence that statistical models are at least as accurate as clinical prediction, it does not follow that such models should be substituted for clinical judgement in all situations (Dawes, 1980; Pritchard, 1980). The clinical approach has demonstrated superiority in studies predicting homosexuality (Lindzey, 1965, cited in Phares, 1984), managerial performance (Korman, 1968, cited in Phares, 1984), and in studies involving psychiatric patients (Goldberg, 1965, 1968; Holt & Luborsky,

1958, cited in Phares, 1984). Research comparing actuarial and clinical approaches to clinical prediction tends to focus on a certain type of outcome - predictions such as grades and vocational performance. For most clinical psychologists, demand for this sort of information is not great - these tasks do not constitute the bulk of a typical clinician's workload. The sort of work in which a clinical psychologist is more likely to be involved is that of a non-predictive, 'greyer', more uncertain nature.

The clinical approach is especially valuable for information gathering, particularly in areas where there are no adequate tests available. There is no evidence that the data gathering function of the clinician can be replaced by other than a clinician (Spitzer, 1983). The vast majority of a clinician's time is spent dealing with clients who have highly individualised circumstances. It seems apparent that "the sensible clinician will employ every regression equation, objective test score, or actuarial method that shows promise of working for a specific task" (Phares, 1984, p351). Some marriage of the actuarial and the clinical approach to clinical prediction is, sensibly, optimal, and indeed encouraged by the professional body of psychologists (see DSM-IV, APS, 1994). The more recent research of the 1980s and 1990s has adopted this idea, emphasising that clinicians are not seeking the 'truth' per se, but rather useful ways of constructing patients and their problems so they can be helped.

A number of authors (Dowie & Elstein, 1993; Hamm, 1993; Hammond, 1980) support a framework in which "the dichotomy between 'intuitive art' and 'analytical science' gives way to a continuum of modes of practice" (Dowie & Elstein, 1993, p5). Hamm (1993) suggests that the (intuitive or analytical) approach adopted for various components of a clinical decision are determined by a clinician's experience and level of expertise, as well as by the structure and content of the task. Accepting that clinical judgement is a well established and even entrenched practice, involving far more than a single prediction, means that it is appropriate to consider the nature of, the processes involved in, and in particular, influences upon clinical judgement.

The relationship between clinical judgement and social judgement

As implied earlier, it can be convincingly argued that clinical judgements are a specific and more constrained subset of social judgements. Mahoney (1988) asserts that it "would be misleading to suggest that the psychological processes involved in clinical judgements are categorically different from those observed universally in the moment-to-moment negotiations of everyday life" (p156). He goes on to suggest that the implicit difference between clinical and non-clinical judgement lies in the expectations and associations attached to clinical judgement. Clinical judgement is considered distinct within social judgements because it addresses the complex processes involved in the undertaking of one person attempting to understand and help another person. Social judgement is a product of relationships between people. Social judgements, like clinical judgements, are not reducible to a single formula, and are exercised daily by the 'social clinician' in each of us.

Influences upon clinical judgement

There are many factors impacting upon a clinician's judgement. Clinical psychologists "ought to be highly suspicious of ourselves...[and] have no right to assume that entering the clinic has resulted in some miraculous mutation and made us singularly free from ordinary errors" (Meehl, 1954, p27). There are influences on clinician's inferences and judgements that are "rooted in the processing of information in general and not solely dependent on clinical orientation" (Turk et al, 1988, p2). There are also, of course, sources of bias more specific to clinical practice.

Information processing biases - general

Clinical psychologists, like all other human beings, are limited by their information

processing capabilities. The therapist, despite training in statistics and experimental methods, is an intuitive social being, and thus is prey to foibles in data gathering, memory processes, and judgement (Nisbett & Ross, 1980). Selective attention is a technique practiced by humans when faced with large amounts of information (Broadbent, 1958). There is a vast range and amount of information demanding the attention of the clinical psychologist. There are a number of cognitive structures and processes, such as traits, schemas, scripts, hypotheses, and heuristics that help the clinician make decisions (see Berman, Read & Kenny, 1983; Rosenhan, 1973 for an overview on traits; Meehl, 1960; Turk et al, 1988, for overviews on heuristics, hypotheses, schemas, and scripts, respectively).

Information processing biases - specific to clinical practice

There are, in addition to fundamental limitations of human processing capacities, some judgement biases more specific to clinical practice. "The stimulus for the clinician is the client... and the client can be considered a bundle of properties" (Smith, 1988). The task of the clinician is to extract those properties of a client necessary for assessment and/or treatment. Clinical judgements are based on physical properties and behaviours, complemented by (inferred) traits of the client. However, contrary to traditional psychological thinking, the mental representation of the client formed by the clinical psychologist generally is not well defined (Rosch & Mervis, 1975). The objective of the clinical psychologist is to use "the available information to synthesise an accurate representation of the client" (Smith, 1988, p86). Achievement of this objective may be difficult given the well documented biases involved in behaviour observations and attributions, traits, and higher order mental representations. The impact of clinicians' attributions, moods, hypotheses, as well as the impact of the information source are discussed below.

Attributions

Attributions are inferences about how people perceive and explain the behaviour of others (Heider, 1958). These processes are found at the core of virtually all clinical activities. Implicitly and explicitly, clinicians make causal judgements from prior to meeting the client, until termination of therapy, and beyond (Jordan, Harvey & Weary, 1988). Further, the theoretical orientation of the clinician provides a set of "systematic attributions for the causes of human behaviour" (Jordan et al, 1988, p90; Snyder, 1981). Cantor (1982) demonstrated that trained clinicians are subject to the same fundamental attribution biases as all human beings. Such biases include actor-observer differences (Bem & Allen, 1974), and egocentric or self-serving biases (Alloy, 1985, cited in Jordan at al, 1988; Schopler & Layton, 1972). Clients who are perceived to be victims of uncontrollable events are treated differently from those clients who are perceived to be responsible for their fate - attributions made on the basis of a clinician's own experience (Brewin, 1984; Jordan et al, 1988). Schematic processing errors (carrying out familiar sequences in a mindless manner) (Langer & Abelson, 1974), biased hypothesis testing (Snyder, 1981), and self-fulfilling prophesies (Keisner, 1985) are further examples of the biases resulting from attempts to explain the causes of another person's behaviour.

Mood

The influence of clinician's mood on the kind of information attended to, stored and retrieved from memory can have significant implications for making inferences and judgements. There are implications for the clinician's attentional focus - intense moods lead to self-focussed attention (Schier, Carver, & Gibbons, 1981). Similarly there are ramifications of the clinician's mood on their motivation to help (Salovey & Turk, 1988). When in a positive mood state, an individual's perceived 'helping self-efficacy' is increased, and they see themselves as more capable of assisting other people. There is also an important effect of mood upon risk taking behaviour. Nearly every decision a clinician makes involves some assessment of risk. Happy moods

simplify the decision making process and result in greater risk taking, provided the risks are not too great. On the other hand, sad moods cause one to overestimate the risk involved (Salovey & Turk, 1988).

Hypothesis formation

There are also biases inherent in any social interaction involving hypotheses about other people. Such examples include behavioural confirmation, a process in which a clinician's preconceived beliefs and expectations about the client shape their interaction with that client so that those expectations are met (Snyder & Thomsen, 1988). Clinicians' stereotypes about gender (Barok & Fisher, 1989; Quadrio, 1992), race (Lewis, Shanok, Cohen, Klingfeld, & Frisone, 1980; Pavkov, Lewis & Lyons, 1989), attractiveness (Hall, Epstein, Deliantis & McNeil, 1993; Snyder, Tanke & Berscheid, 1977), and social class of their clients have self-fulfilling consequences upon their interactions with them. Further, in social interactions, and especially in the therapeutic setting, people [read clinicians] systematically choose to solicit evidence to confirm the hypotheses (Snyder & Gangestead, 1981). In combination, hypothesis testing and behavioural confirmation have significant implications for the clinician's diagnosis of the client's problem, for their aetiological explanation of the problem, as well as for the recommended treatment or intervention.

Information source

All the biases and heuristics discussed thus far have one thing in common - generally they come into play during or after the initial meeting and interaction between the clinical psychologist and the client. Some of these influences can take effect prior to this point - such as attribution biases relating to the identity of the client. One factor that has not been considered in any of the literature to date is the potential influence of the identity of other sources of information about the client. It is increasingly common that an individual is referred to a clinical psychologist, especially in private practice. Generally the client is referred by a medical doctor, another clinician, a school, the

courts, or some other source - allied and fringe health services. The clinician therefore often has information about the client before they have even made contact with each other. Is there room at this stage of the therapeutic proceedings for anything but straight-forward, objective absorption of the information provided by the referral source?

Influence of the referral source

Information about a client always has a context. The context of information can refer to the tone and surrounding content of the information - 'the fuller picture'. The source of the information is equally important. In this paper it is hypothesised that the source of clinical information, and the relationship between the source and the clinician, will have an effect, above and beyond the effect of the information itself, on the inference and judgement processes of the clinician receiving the information.

Minimal previous research investigating the influence of the referral process on subsequent clinical treatment was found. Anecdotally, it is obvious (and empirically, it has been demonstrated; Levine, 1987) that assumptions made by the referral source can affect the treatment of the client. When information about a client comes, not from the client, nor from direct observation of the client, but from a more removed source such as the referring agency, then there is an important potential influence upon a clinician's judgement of that client. If someone offers a professional opinion, then what is known and thought of that person has a direct impact upon whether the opinion/information is accepted or not. This principle is illustrated by the fact that most people will believe gossip told by a respected friend far more than that if told by a disliked acquaintance. This issue falls within the brief of social psychology, specifically, the psychology of social influence.

Source effects and social influence

What makes any one source more or less influential than another in deliverance of the same information? Contemporary persuasion literature highlights a number of factors involved in changing attitudes. The source of the communication, the message itself, the medium, and the recipient of the communication are the most commonly mentioned. In this paper it is aspects of the source and their influence upon the way their message is received that are most pertinent. Both Penrod (1983) and Sampson (1991) put forward credibility, attractiveness, and power of the source as characteristics contributing to the persuasiveness of the source. Penrod suggests that speech style and conclusion drawing are additional influential features.

Credibility is based on expertise (qualifications) and trustworthiness (perceived honesty). If several sources produce a message with the same content, then the source with the greatest credibility will be the most persuasive (Kelman & Hovland, 1953; McGuire, 1985). Attractiveness of, perceived similarity to, and identification with an information source have each been demonstrated to increase the influence of the source (Hogg, Hardy & Reynolds, 1995; Kelman, 1965; Mills & Aronson, 1965; Roskos & Fazio, 1992). The ability of the source to punish or reward the recipient in accordance with their attitude change (ie. the power of the source) is another base of source influence (McGuire, 1969), although it is debatable whether this power leads to private as well as public compliance. The effectiveness of a message has also been shown to depend upon the style in which it is delivered. Rhetorical questions and fast speech result in greater acceptance of the message. Further, if a conclusion is explicitly drawn, then the source is more persuasive than if their audience is left to draw their own conclusions (Penrod, 1983).

It is becoming clear that there are important effects on account of the source of information. However, it is also clear that different individuals find different sources

influential. One current idea, that upon reflection could be seen as a synthesis and extension of the first two source characteristics discussed above, is that people are more influenced be people they consider to be similar to themselves. Self-categorisation theorists suggest that the key to influence is the relationship between the source and the recipient of the information (Turner, 1991; Turner, Hogg, Oakes, Reicher & Wetherell, 1987). Social influence is considered a group process because, even if an individual is not physically in the company of a group with whom they identify, the associated values and norms of that group are still pertinent. The common responses of those we identify with are externally attributed, and are therefore perceived as more objective, correct and reliable.

A fundamental concept is that it is not just the identity of the source (although this does have an impact) but the relationship between the source and the recipient of the information that influences the recipient's acceptance of information from the source. It is well established that people are influenced by ingroups (ie. those with whom they identify) more than they are by outgroups (Clark & Maass, 1988a; Clark & Maass, 1988b; Mackie, 1986; Mackie & Cooper, 1984; Mackie, Gastardo & Skelly, 1992; Mackie, Worth, & Asuncion, 1990).

Mackie, Worth, & Asuncion (1990) investigated the relative persuasiveness of weak and strong messages from ingroups and outgroups. They had participants (university students) read a message about standardised assessment/testing and the use of the SAT as a criterion for college entrance. These messages ostensibly represented the position of either their own university or from another university. Participants were most persuaded by the strong message from their own university (ingroup, strong), and moderately persuaded by a weak message from their own university (ingroup, weak). They were least persuaded by a message from the other university (outgroup) irrespective of the strength of the message. Interestingly in a second study, it was found that when the message was relevant to the ingroup, participants accepted the

strong ingroup message and not any other. When the message was not relevant to the ingroup, participants accepted the ingroup message regardless of strength of argument, and rejected any outgroup message. In summary, we accept information from others we identify with (ingroups), but reject information from sources we do not identify with (outgroups). The relationship between the source and the recipient (ingroup-outgroup status) has an effect upon the persuasiveness of the source.

It is important to consider then, what specifically makes an individual categorise a source as ingroup or outgroup. An individual's identification with a group depends on perceived similarity on a relevant dimension (Hogg, Hardy & Reynolds, 1995; Simon, Pantaleo & Mummendey, 1995). The salience of a particular characteristic or dimension for group formation varies with the comparative context (Haslam & Turner, 1992; Hogg, Turner & Davidson, 1990, cited in Haslam, Turner, Oakes, McGarty & Hayes, 1992; Hogg & Turner, 1987; Oakes, Turner & Haslam, 1991; Turner, Oakes, Haslam & McGarty, 1994). That is, self-categorisation (identification with a group) varies as a function of the specific context.

The same person/source could be considered either ingroup or outgroup, depending on the comparative context - the range of other people involved. "Salient self-categorisations are therefore intrinsically variable and fluid, not merely being passively 'activated', but actively constructed 'on the spot' to reflect the contextual properties of self and others... categorising is *inherently comparative* and therefore context-dependent and relevant to a frame of reference" (Haslam et al, 1992, p5 - italics original, underlining added for emphasis). On any relevant dimension therefore, comparison with anyone else by an individual, is always in reference to that individual's own position. Other people's relative positions along the comparable dimension define the extent of the comparative context. Categorisation of self as similar or different to another person (that is , ingroup or outgroup) necessarily follows comparison of one's own position on the salient dimension, with that of an

other.

The guiding principle of category formation, metacontrast, predicts that perceived differences between categories will be greater than differences within categories (Haslam & Turner, 1992; Turner & Oakes, 1989). Group identity can often be predicted on the basis of the range of other identities in the comparative context. Multiple examples of this are found in the work of David and Turner (1992). One such example is as follows - moderate feminists did not identify with a radical feminist in a context comprising only other radical feminists, but identified far more closely in a context that included anti-feminist individuals. In this scenario, the information presented by the radical feminist was accepted by the moderate feminists as valid and persuasive in the latter extended comparative context. The same information presented by the same radical feminist in the former restricted comparative context was rejected as less persuasive. This is because the moderate feminists would have identified closely with the radical feminist, and subsequently accepted their information as valid, in the extended but not the restricted comparative context.

This notion that the influence of information is not independent of the recipient, the source, nor the recipient's relationship with the source is both sensible and of central importance to this paper. In summary, information is never approached in a purely objective manner. If the source is one which the individual identifies closely with, then the information will be more acceptable to that individual. Further, the identity of that source is contextually variable. Together this means that, for any individual, the acceptability of some information from a given source varies directly and in a predictable way, with the context in which that source is perceived to be embedded.

Clinical judgement and perceived identity of the referral source

The identity of the referral source in a clinical environment can vary from other clinical

psychologists, to general practitioners, to welfare workers, to psychiatrists and so on. For any given clinical psychologist receiving a referral, there is a complex set of relationships involving all these potential referral sources, or representatives of them. Following directly from the research and literature discussed thus far, two primary hypotheses for the present study can be drawn. Firstly it is hypothesised that the relationship between a referral source and a clinical psychologist will vary with the comparative context. It will be tested whether clinicians' identification with a target referral source can be experimentally manipulated by changing the comparative context. It is expected that clinicians will identify more with and assimilate a target referral source as ingroup in an extended comparative context. It is also expected that clinicians will contrast the same target referral source as outgroup in a restricted comparative context.

The second hypothesis of this study is that clinical psychologists' judgements of the target source's referral will vary with the relationship between that referral source and the clinician. It is predicted that participants' evaluation of the 'judged' source's referral will be dependent upon the extent to which they identify with the judged source. Clinicians will evaluate information more favourably if they perceive the judged source to be ingroup rather than outgroup. In other words, clinicians self-categorising themselves as belonging to a professional group that is close in identity to, or includes the judged source, are more likely to accept the judged sources' information as valid.

The present study

The strategy used to test these hypotheses is as follows. Clinical psychologist participants will receive a written referral to be evaluated in one of two comparative contexts. This judged referral source is to be a professional group that might be perceived as moderate in the pool of mainstream mental health professionals. It is to

be such that any clinical psychologist might assimilate this judged source as ingroup in an extended comparative context, and yet contrast them as outgroup in a restricted comparative context. Clearly then, two comparison referral sources are also necessary. These comparison sources need to be close to and far from the self perceived professional identity of clinical psychologists in order to 'create' an extended and restricted comparative context, respectively. Figure 1 shows the intended relative relationships of professional groups in this study.

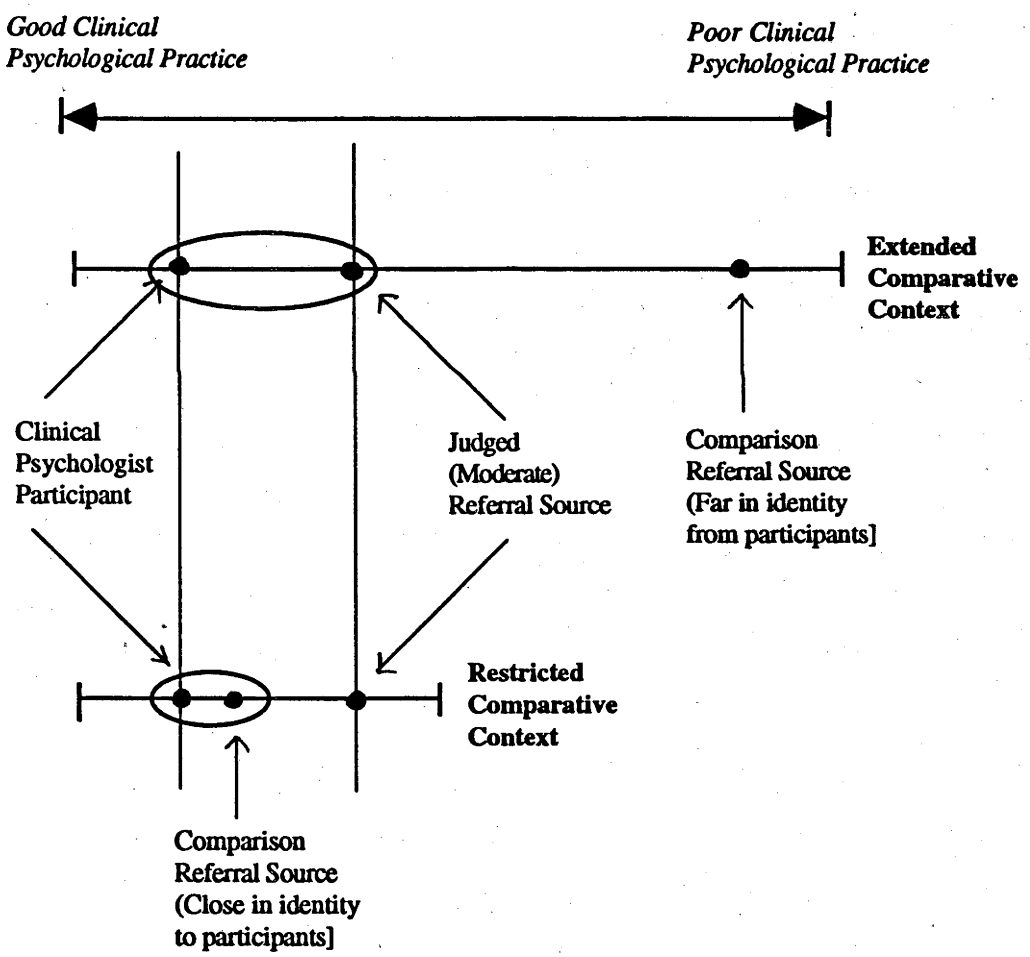


Figure 1. Relative relationships of professional groups in this study

The dimension of comparison, therefore, is quality of clinical psychological practice. The top half of Figure 1 illustrates the dynamics of an extended

comparative context. Clinical psychologists are expected to assimilate the judged referral source as ingroup when the context is extended to include 'fringe' practitioners such as scientologists. The lower half of Figure 1 shows how clinical psychologist participants are expected to contrast the same judged referral source as outgroup when the context is restricted to mainstream clinical professionals (ie. the comparison referral source is close to their professional identity).

A pilot study was conducted in order to determine the identities of the judged referral source and two comparison referral sources. Participants of this pilot study rated 32 mental health, health, and allied occupations in response to a range of questions. Participants for this pilot study comprised both fully qualified and practicing clinical psychologists, and final year postgraduate (Master of Clinical Psychology) students. There was no difference between the responses of these groups, and so all data were combined. The three occupational groups that were consistently rated as closest to, moderately far from (or close to), and far from the professional identity of clinical psychologists were family and child psychologists, general medical practitioners, and scientologists, respectively. Complete details of this pilot study are in Appendix A.

There are to be three independent variables in this experiment. 'Comparative context' is the context in which the judged referral source was embedded. This factor consisted of two levels - extended and restricted. Extended comparative context refers to conditions in which the judged referral was accompanied by a referral from a source far from the participants' professional identity (ie. scientologist). A restricted comparative context, in contrast, refers to experimental conditions in which the comparison referral was written by a source close to the participants' own professional identity (ie. family and child psychologist).

The remaining two independent variables are included in order to address potential (and likely) expectations of differing levels of skill and quality between the two

comparison referral sources. Internal consistency of information in both the judged and the comparison referrals are controlled for. There are two levels for each of these consistency factors - consistent and inconsistent. An internally consistent referral is one in which the diagnosis and treatment recommendations are commensurate with the presentation of the client (and in accordance with standard and accepted clinical psychological practice). An internally inconsistent referral is one in which the diagnosis and treatment recommendations did not follow (obviously) from the presentation of the client.

Although the manipulation of internal consistency was for control purposes, there are two obvious predictions. It is expected that clinicians' ratings of the judged referral would be greater when the judged referral is internally consistent, and also when the comparison referral is internally inconsistent. The main focus and interest of this study is however, effects of clinician identification with the referral source and the impact of the comparative context.

METHOD

The proposition to be tested is that the perceived relationship between a referral source and an individual clinician will vary with the comparative context, and will influence the extent to which the clinician accepts that source's information as valid.

Design

The between subjects experimental design was as follows :

2 (comparative context : extended/restricted) x

2 (consistency of judged referral source : consistent/inconsistent) x

2 (consistency of comparison referral source : consistent/inconsistent).

Participants

Participants for the main study were full members of the College of Clinical Psychologists of the Australian Psychological Society. A total of 560 (280 female, 280 male) such members were approached by letter, and asked to complete a questionnaire. There were 217 (98 female, 118 male) responses, representing a 38.75% response rate.

Materials and procedure

A cover letter preceded the experimental material. This cover letter introduced the study and invited the recipient to participate. Experimental material for each participant comprised an introductory page, a consent form, two referrals for psychological services, and a questionnaire pertaining to one of the referrals. The introductory page asked the participant to assume that the two referrals had been received by themselves in the normal course of their clinical practice. One of the two referrals was from the judged referral source - Northside General Medical Practitioners. The accompanying referral was from one of two comparison referral sources. In extended comparative context conditions participants received a comparison referral from Northside Scientologists. In restricted comparative conditions participants received a comparison referral from Northside Family and Child Psychologists.

The first two questionairre items asked participants how closely they identified with the comparison referral source, and how closely they identified with the judged referral source. The first question (item one of the questionnaire) was a manipulation check - to determine whether the results of the pilot study were appropriate for use in the main study. The second question (item one of the questionnaire) was designed to test hypothesis one - whether participants identified

more with the judged referral source in the extended rather than the restricted context.

All participants were then asked to make a series of judgements about the judged referral only (ie. about the referral from the general medical practitioners). Each participant was told other people were considering the second (comparison) referral. This was to avoid an obvious bias that may have come about by only requesting the participants to rate only one referral. Acceptance/evaluation of information from the judged referral source was measured by participants' responses to a set of 10 further questionnaire items. These 10 dependent variables were items three to twelve of the questionnaire, and were as follows :

Item 3	Agreement with diagnosis
Item 4	Appropriateness of treatment recommendation
Item 5	Usefulness of information
Item 6	Accuracy of referral
Item 7	Weight given to referral information in overall assessment
Item 8	Proportion of information accepted without question
Item 9	Joint management and treatment
Item 10	Professional standard
Item 11	Trustworthiness with respect to diagnosis and treatment
Item 12	Acceptance of referred client

Participants were asked to respond to all items by marking a 100mm visual scale at the point they felt best represented their position on that question. The labels for the extremities of each scale differed with the specific nature of each question, but each ranged quantitatively from 0 to 100, representing negative and affirmative answers, respectively. Participants were invited to make additional comments, and space was provided after each questionnaire item for this purpose.

Demographic material (age, sex, and years of practice) was also gathered. Potential differential effects were accounted for by using these variables as covariates.

Completed questionnaires and consent forms were then returned to the author in pre-paid envelopes. Confidentiality was assured and maintained. A copy of all experimental materials is in Appendix B.

RESULTS

Two hundred and seventeen clinical psychologists chose to participate in the study. All conditions had at least 22 respondents. Complete details of response frequencies and distribution are in Appendix C.

Manipulation check

A 2 (comparative context : extended/restricted) x 2 (consistency of comparison referral : consistent/ inconsistent) x 2 (consistency of judged referral : consistent/inconsistent) ANCOVA was conducted. The dependent variable was the response (0-100) to item one of the questionnaire - "How closely do you identify professionally with [Northside Scientologists or Northside Family and Child Psychologists]?" Age, sex and years of practice were covariates.

There was a significant main effect for the comparative context ($F(1,203) = 135.03$, $p = 0.000$) indicating that, overall, participants identified significantly more with the Family and Child Psychologists (mean = 43.88, standard deviation (sd) = 28.65) than with the Scientologists (mean = 8.14, sd = 15.91). This result is a premise on which the whole study rests, and means that the results of the pilot study were appropriate to use in present main study. Table 1 presents the means and standard deviations of participants' identification with the comparison referral source.

There was also a main effect for consistency of the judged referral ($F(1,203) = 7.69$, $p = 0.006$) such that participants identified with the comparison referral more

when the judged referral was consistent (mean = 30.43, sd = 29.67) than inconsistent (mean = 21.58, sd = 20.09). This result was unexpected. The only significant interaction was between consistency of the judged referral and consistency of the comparison referral ($F(1,203) = 5.57$, $p = 0.019$). Participants receiving a consistent judged referral rated the comparison source as closer to themselves when the comparison referral was consistent (mean = 35.94, sd = 21.63) rather than inconsistent (mean = 24.93, sd = 24.76). Participants receiving an inconsistent judged referral indicated little difference in their identification with the comparison source on account of the consistency of the comparison referral (mean = 20.30, sd = 20.75, and mean = 22.88, sd = 34.16, for consistent and inconsistent, respectively).

Table 1
Participants' identification with comparison referral source (mean, standard deviation)*

Consistency of judged referral source Consistency of comp. referral source	Con Con	Con Incon	Incon Con	Incon Incon
Comparative context				
Extended	3.68	7.06	10.00	13.63
(sd.)	5.91	16.24	19.93	19.88
Restricted	42.07	33.79	39.86	58.29
(sd)	28.25	25.26	29.58	28.38

* Range : 0-100 where 0 is 'no identification'

Identification with the judged source

An assumption of this experiment was that clinical psychologist participants would vary in the degree to which they identified with the judged referral source. It was predicted that this variation could be manipulated according to the comparative context in which the judged referral was presented. In order to determine whether

comparative context of the judged referral impacted upon the degree to which people identified with this judged source, the following analysis was performed.

A 2 (comparative context : extended, restricted) x 2 (consistency of comparison referral : consistent/inconsistent) x 2 (consistency of judged referral : consistent/ inconsistent) ANCOVA was conducted. The dependent variable was the response (0-100) to item two of the questionnaire - "How closely do you identify professionally with Northside General Medical Practitioners?" Age, sex and years of practice were covariates.

There was a highly significant main effect for comparative context, ($F(1,203) = 27.53$, $p = 0.000$), indicating that the context in which the judged referral was presented had an impact on the subsequent degree to which the participants identified with judged referral source. The degree to which participants identified with the judged referral was significantly higher when the judged referral was received in an extended comparative context (mean = 52.99, standard deviation (sd) = 26.34), as compared to a restricted (mean = 33.98, sd = 25.43) comparative context. There were no other significant effects. Figure 2 illustrates the effect of comparative context upon participants' identification with the judged referral source. Table 2 presents the means and standard deviations of participants' identification with the judged referral source. The first hypothesis of this study is clearly supported by these results.

Evaluation and acceptance of judged referral

Predictions regarding the relationship between identification of clinical psychologist participants with the judged referral source and the participants' subsequent evaluation of the information in the judged referral, were evaluated as follows .

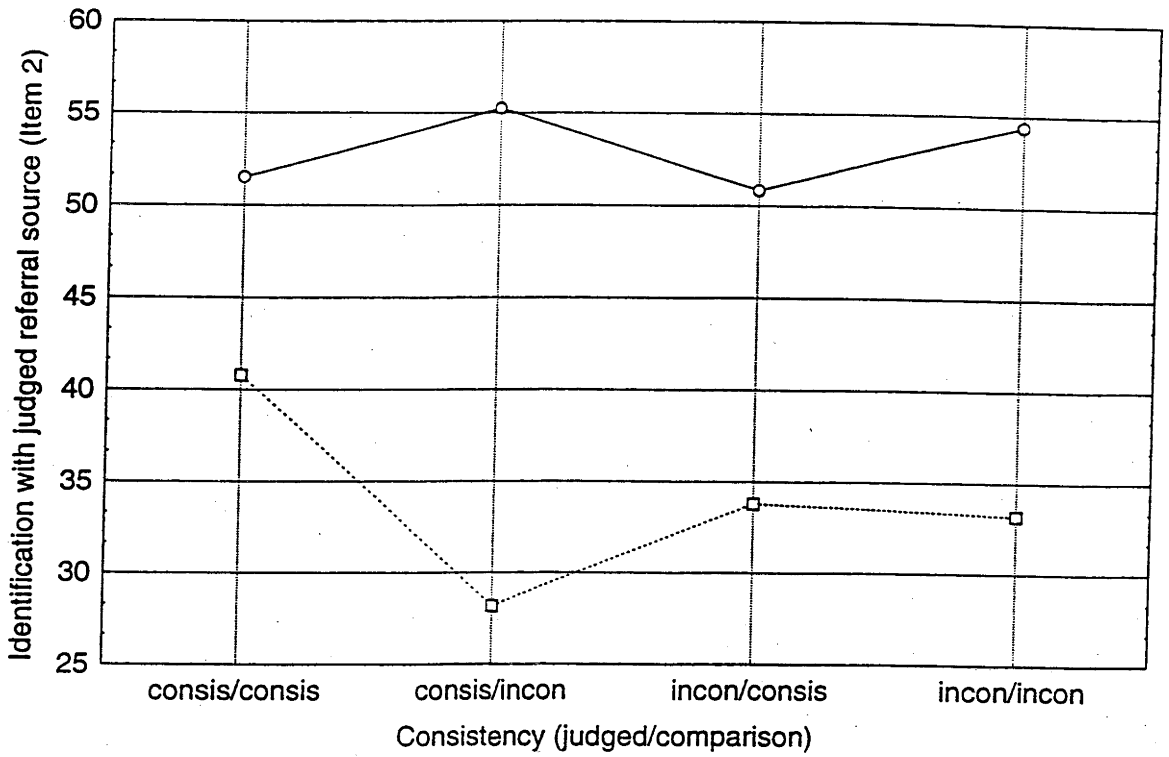


Figure 2. Graph of effect of comparative context upon participants' identification with judged referral source

Table 2.
Participants' identification with judged referral source (mean, standard deviation)*

Consistency of judged referral source / Consistency of comp. referral source	Con / Con	Con / Incon	Incon / Con	Incon / Incon
Comparative context				
Extended (Scientol.)	51.50 25.85	55.25 29.51	50.82 20.88	54.39 28.92
Restricted (Psych)	40.78 25.90	28.18 20.43	35.33 27.74	33.18 25.66

* Range : 0-100 where 0 is 'no identification'

A 2 (comparative context : extended, restricted) x 2 (consistency of comparison referral : consistent/inconsistent) x 2 (consistency of judged referral : consistent/ inconsistent) MANCOVA was conducted. The dependent variables were 10 questionnaire items assessing acceptance of the information in the judged referral (items three through twelve in the questionnaire). Age, sex and years of practice were covariates.

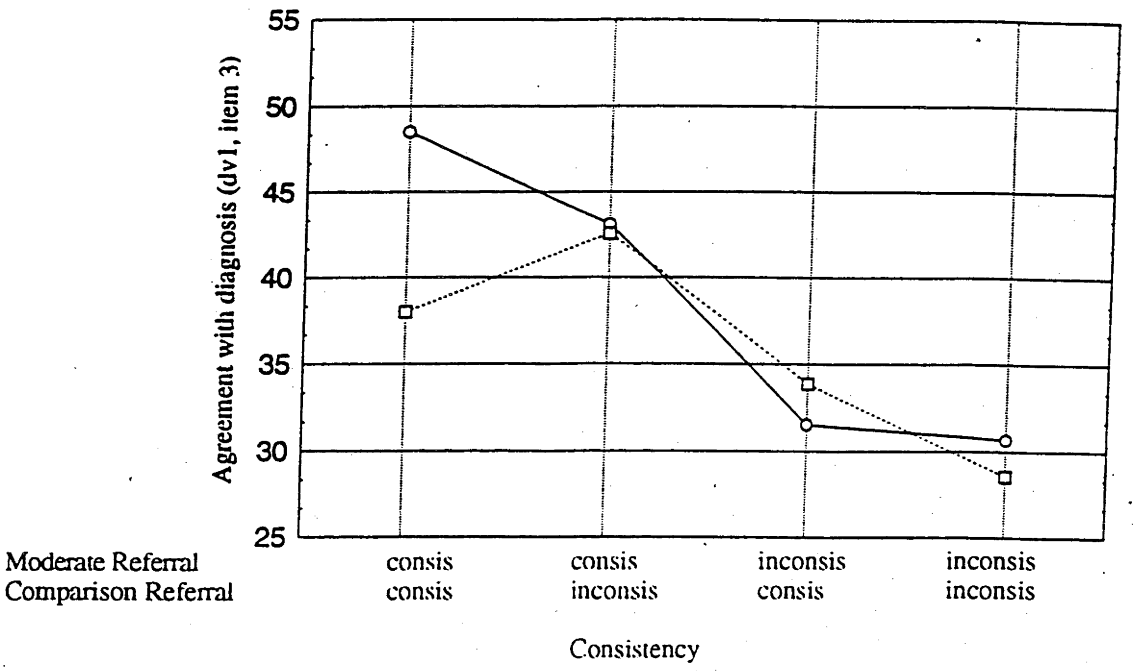
There was no main effect for comparative context (Rao R(10,161) = 0.93, $p < 0.509$). This is contrary to expectation. As expected there was a main effect for the consistency of judged referral information (Rao R(10,161) = 2.83, $p < 0.00$). The effect was such that, when participants received a judged referral with consistent information, their overall judgements about this referral were significantly more favourable than when the referral contained inconsistent information. Also as predicted, there was a main effect for the consistency of the information from the comparison source (Rao R(10,161) = 1.91, $p < 0.047$). The effect was such that, when the comparison referral contained inconsistent information, participants' judgements (overall) about the judged referral were significantly more favourable than when the comparison referral contained consistent information.

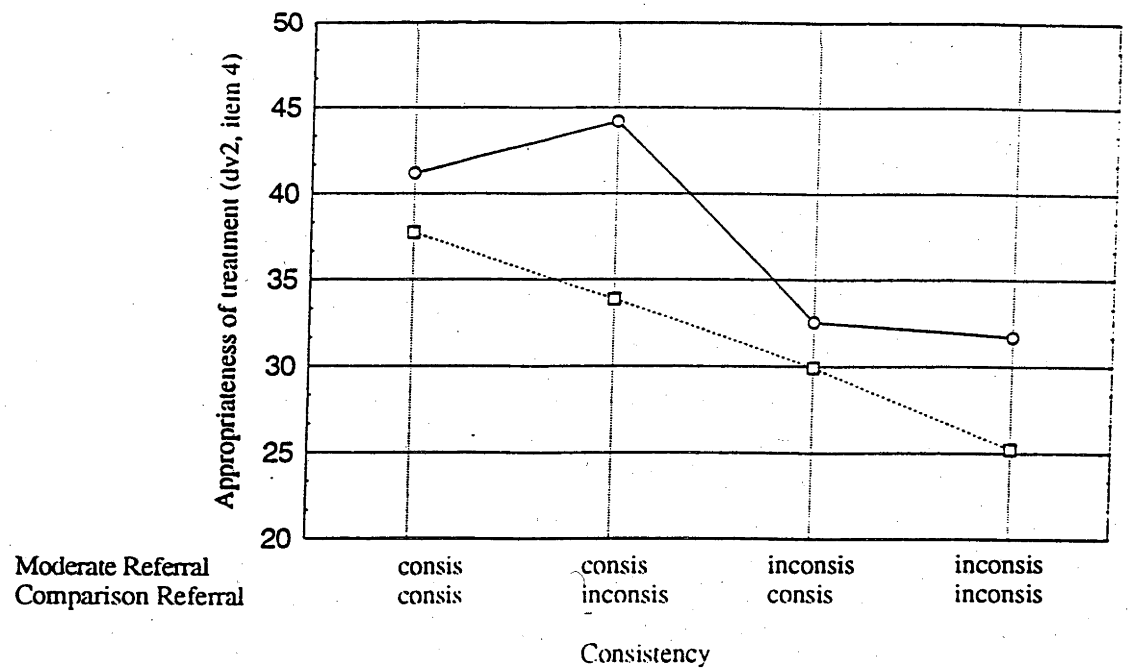
Closer examination of the individual items comprising 'acceptance of information from judged referral source' indicated that in fact, although not significant, for nine of these ten questionnaire items participants rated the judged referral more favourably in an extended than a restricted comparative context. Given that individual item results were in the expected direction, further analyses were undertaken. Figure 3 shows graphs of the effect of comparative context for each of the 10 dependent variables. As can be seen, there was not a single pattern of results across all dependent variables.

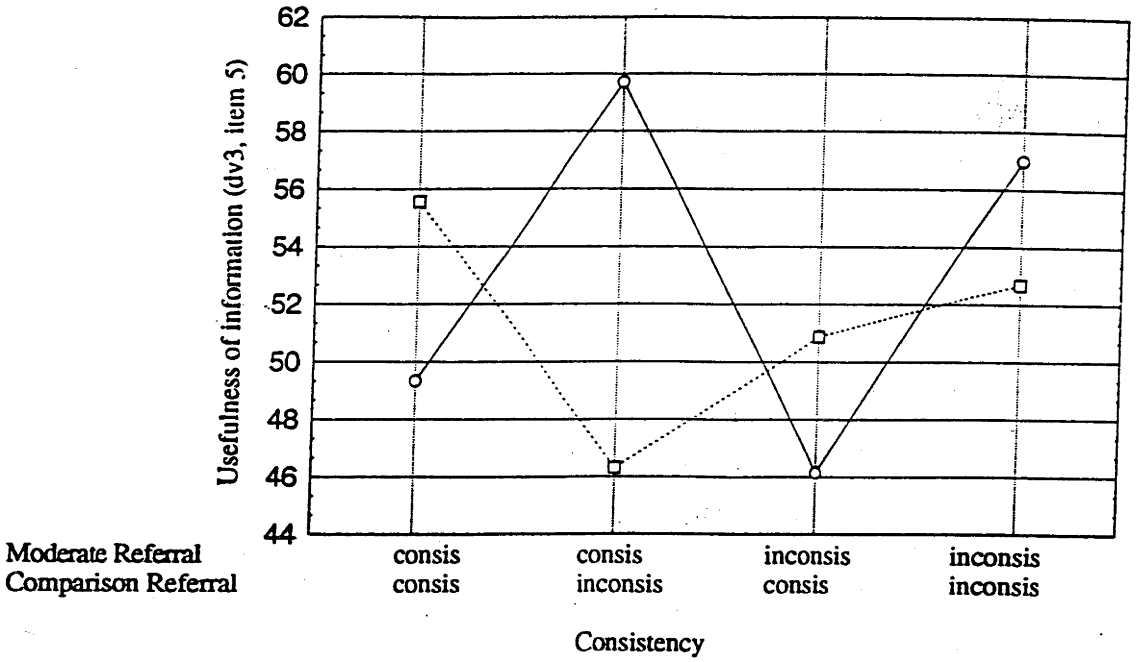
Figure 3 Graphs of effects of comparative context for each of the 10 dependent variables

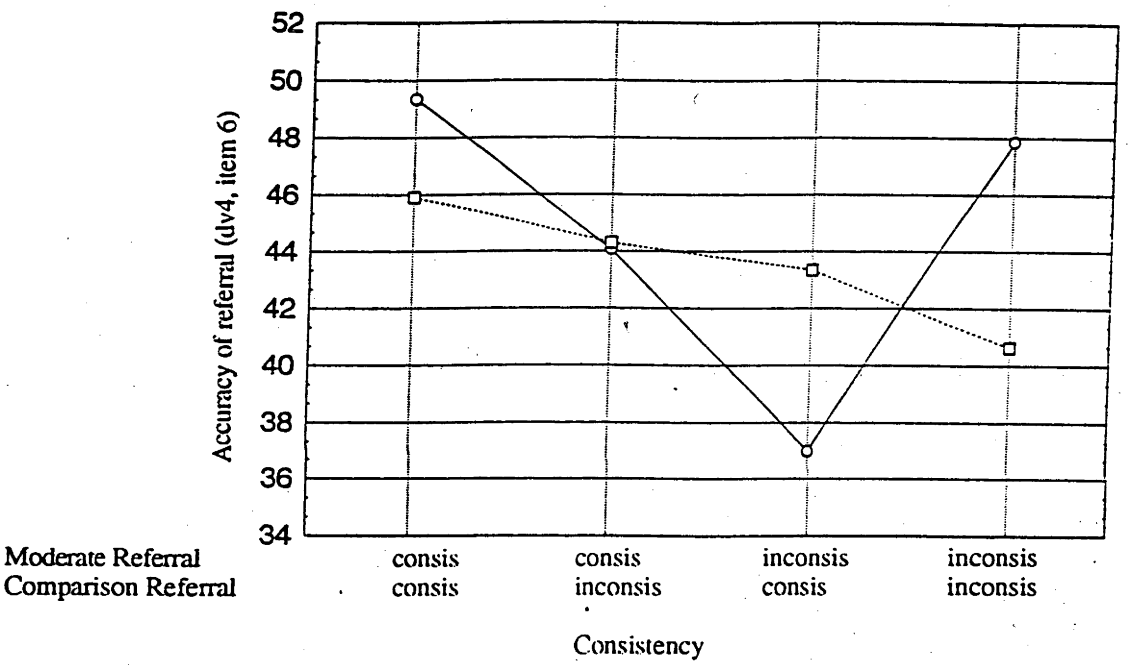
—○— Extended comparative context

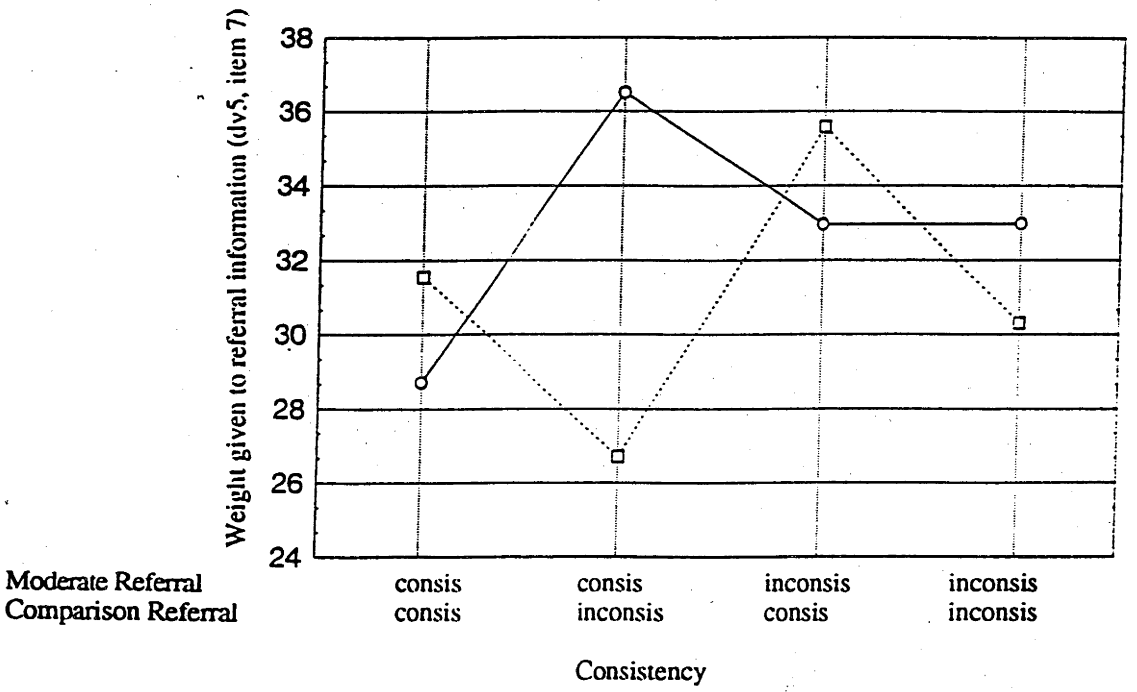
—□— Restricted comparative context

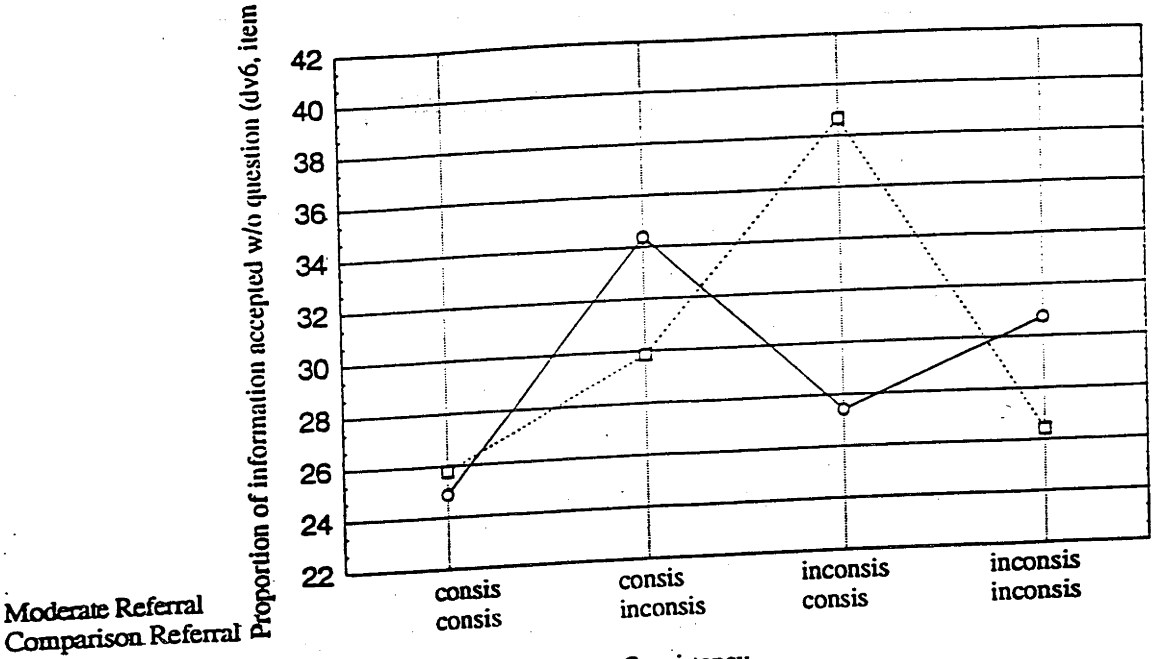


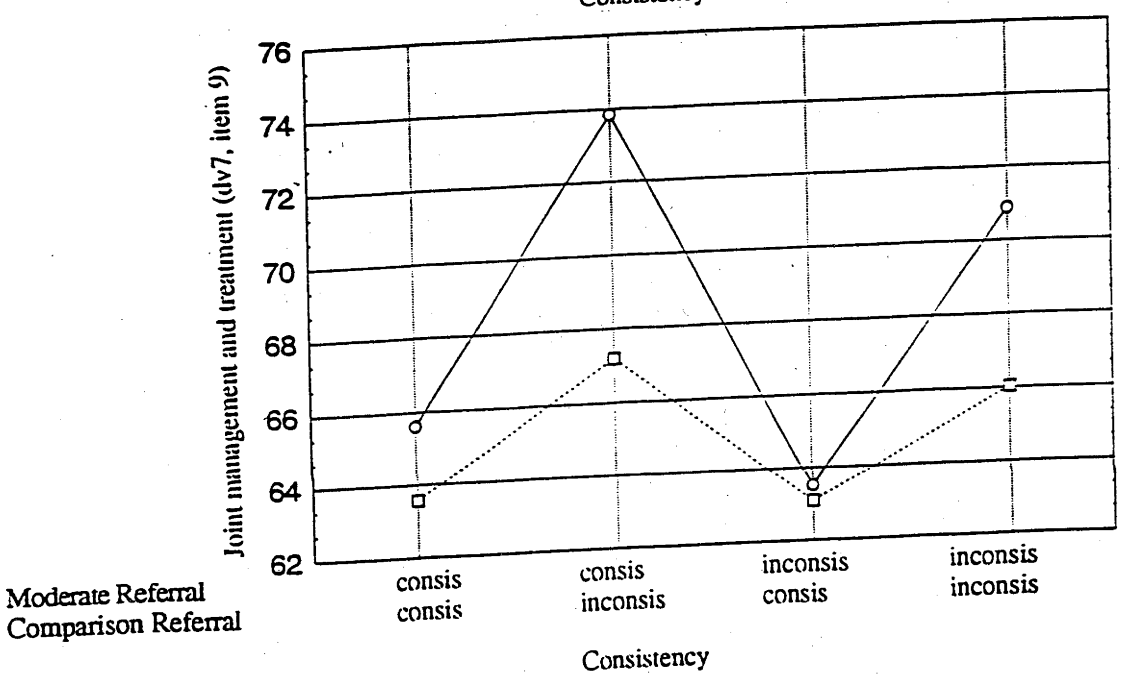


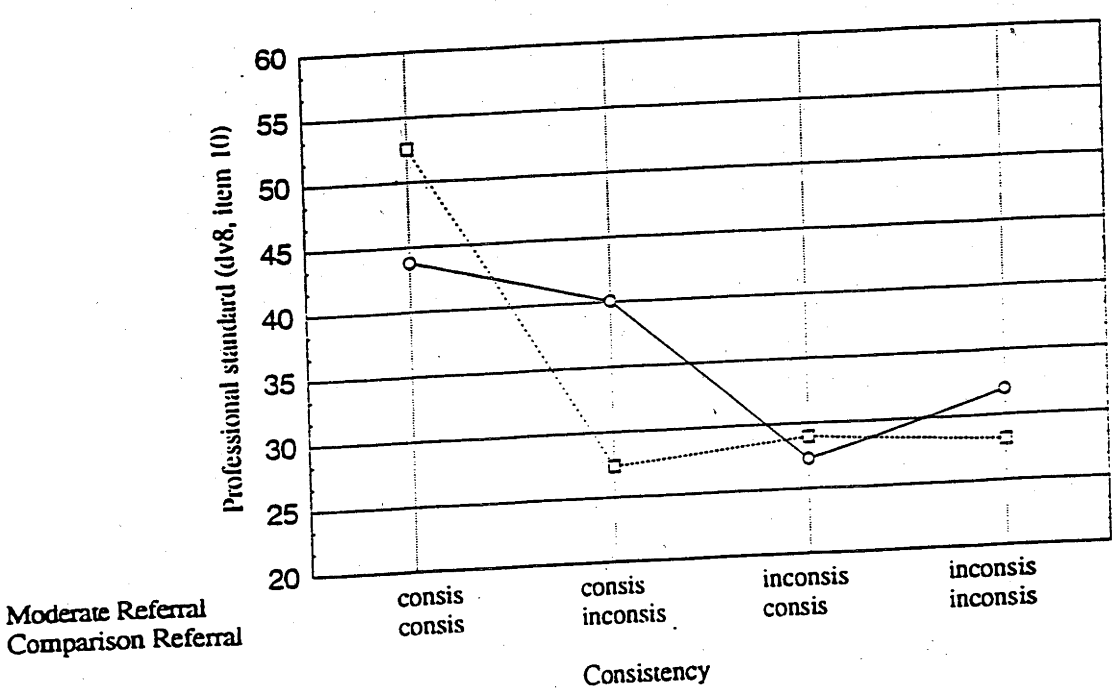

Usefulness of information (dv3, item 5)
62
60
58
56
54
52
50
48
46
44
Moderate Referral
Comparison Referral
consis consis
consis inconsis
inconsis consis
inconsis inconsis
Consistency

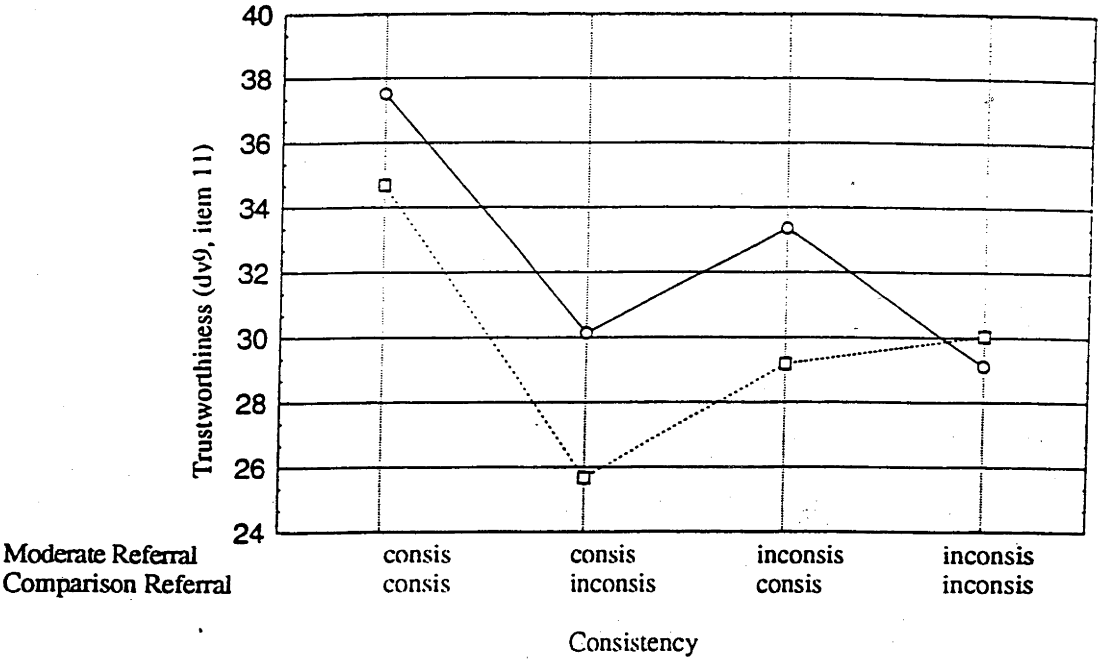

Accuracy of referral (dv4, item 6)
52
50
48
46
44
42
40
38
36
34
Moderate Referral
Comparison Referral
consis consis
consis inconsis
inconsis consis
inconsis inconsis
Consistency

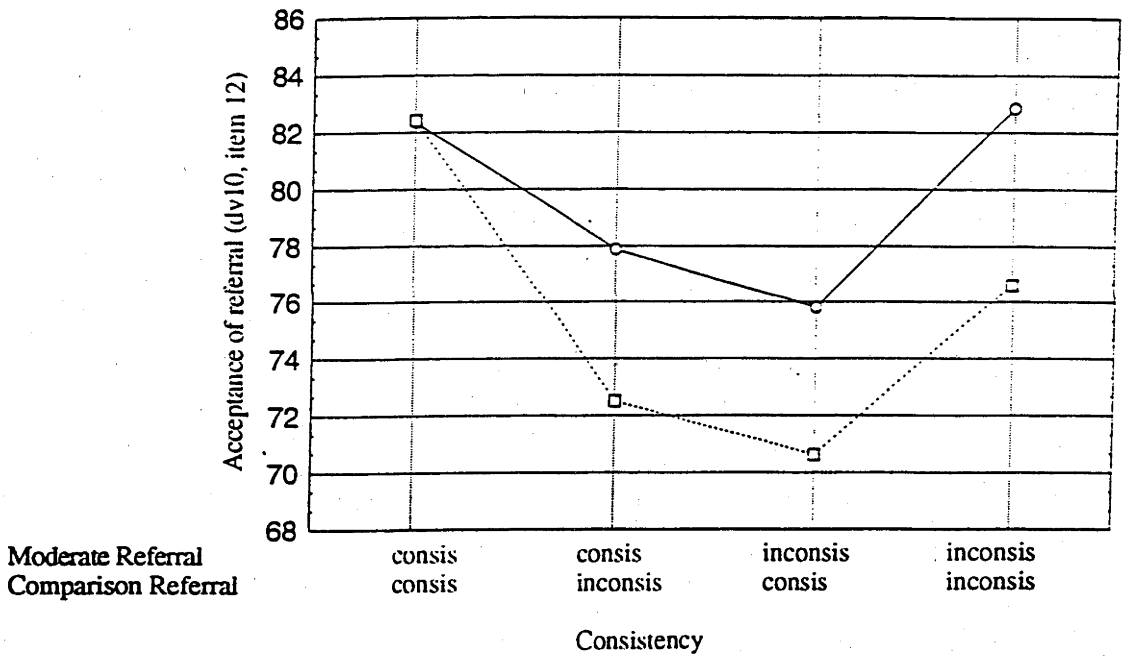

Weight given to referral information (dv5, item 7)
38
36
34
32
30
28
26
24
Moderate Referral
Comparison Referral
consis consis
consis inconsis
inconsis consis
inconsis inconsis
Consistency


Proportion of information accepted w/o question (dv6, item
42
40
38
36
34
32
30
28
26
24
22
consis consis
consis inconsis
inconsis consis
inconsis inconsis
Consistency
Moderate Referral
Comparison Referral


Joint management and treatment (dv7, item 9)
76
74
72
70
68
66
64
62
consis consis
consis inconsis
inconsis consis
inconsis inconsis
Consistency
Moderate Referral
Comparison Referral


Professional standard (dv8, item 10)
60
55
50
45
40
35
30
25
20
consis consis
consis inconsis
inconsis consis
inconsis inconsis
Consistency
Moderate Referral
Comparison Referral


Trustworthiness (dv9, item 11)
40
38
36
34
32
30
28
26
24
Moderate Referral
Comparison Referral
consis consis
consis inconsis
inconsis consis
inconsis inconsis
Consistency


Acceptance of referral (dv10, item 12)
86
84
82
80
78
76
74
72
70
68
Moderate Referral
Comparison Referral
consis consis
consis inconsis
inconsis consis
inconsis inconsis
Consistency

Each of the 10 individual items was subjected to a 2 (comparative context : extended/restricted) x 2 (consistency of judged source : consistent/inconsistent) x 2 (consistency of comparison source : consistent/inconsistent) ANCOVA. Age, sex and years of practice were covariates. A summary of means and significant results of these analyses is in Table 3. There were no significant main effects for comparative context or consistency of the comparison referral. There were, however, significant main effects obtained for consistency of the judged referral on three of the items, and significant interaction effects also on three items.

The significant main effects were as follows. Participants agreed with the diagnosis (item one) significantly more, ($F(1,195) = 15.54$, $p < 0.05$), when the judged referral was consistent (mean = 43.04, sd = 21.50) than inconsistent (mean = 33.14, sd = 21.50). Similarly, the treatment recommendations (item two) were rated as significantly more appropriate, ($F(1,199) = 8.27$, $p < 0.05$), when the judged referral was internally consistent (mean = 39.24, sd = 23.26) than inconsistent (mean = 29.84, sd = 21.87). The professional standard of the judged referral (item 10) was rated significantly more favourably, ($F(1,196) = 9.19$, $p < 0.05$), when that referral was consistent (mean = 40.94, sd = 30.26) than inconsistent (mean = 29.08, sd = 24.56).

Significant interaction effects were observed on three items. First, there was an interaction between comparative context and consistency of comparison referral for usefulness of information, $F(1,202) = 4.92$, $p < 0.05$). When the comparative context was extended, respondents rated the usefulness of the judged referral (item five) as greater when the comparison referral was inconsistent (mean = 59.34, sd = 24.09) than consistent (mean = 47.73, sd = 23.22). Conversely, when the comparative context was restricted, the judged referral was rated as more useful when the comparison referral was consistent (mean = 53.22, sd = 25.69), than inconsistent (mean = 49.49, sd = 25.69).

Table 3.
Means (standard deviations) and significant (ie. $p < 0.05$) results of univariate analyses of covariance (ANCOVA)

Judged Ref *Comp. Ref* *Context* Item	*Consis* *Consis* *Extended*	*Consis* *Inconsis* *Extended*	*Inconsis* *Consis* *Extended*	*Inconsis* *Inconsis* *Extended*	*Consis* *Consis* *Restricted*	*Consis* *Inconsis* *Restricted*	*Inconsis* *Consis* *Restricted*	*Inconsis* *Inconsis* *Restricted*	Significant results of ANCOVAs *Main*	 *Interaction*
Diagnosis	48.09 (19.01)	45.25 (21.48)	32.26 (23.06)	32.00 (21.94)	36.68 (23.21)	41.84 (22.33)	37.36 (20.43)	29.23 (19.66)	JRC F(1,195) = 15.54	nil
Treatment	39.90 (26.69)	46.42 (22.88)	29.42 (22.82)	31.96 (23.61)	37.00 (23.47)	37.10 (19.13)	25.73 (22.79)	23.95 (17.26)	JRC F(1,199) = 8.27	nil
Usefulness	49.36 (24.63)	60.28 (23.48)	44.68 (21.81)	59.06 (24.71)	59.36 (24.44)	48.47 (25.75)	50.21 (22.49)	53.14 (25.64)	nil	(CC x CRC) F(1,202) = 4.92
Accuracy	49.36 (17.90)	45.17 (20.18)	36.57 (21.28)	48.48 (22.24)	45.73 (31.12)	43.42 (17.81)	42.89 (20.79)	39.90 (22.29)	nil	nil
Weight given	29.27 (20.45)	38.89 (20.75)	32.94 (19.71)	35.12 (24.19)	32.26 (15.69)	27.31 (18.67)	30.21 (17.57)	33.23 (19.97)	nil	nil
Ppn Accepted	26.95 (25.28)	34.67 (23.80)	29.00 (18.94)	31.21 (31.39)	24.26 (24.54)	31.15 (22.29)	35.63 (28.90)	27.14 (18.49)	nil	nil
Joint Mgt	65.00 (26.67)	73.10 (20.48)	60.00 (22.93)	73.09 (24.19)	65.52 (35.59)	68.86 (20.66)	62.89 (18.70)	68.42 (19.37)	nil	nil
Prof. Std	45.77 (29.30)	42.53 (32.58)	23.63 (14.81)	33.30 (28.82)	55.10 (31.69)	27.89 (20.50)	30.68 (25.62)	30.71 (23.87)	JRC F(1,196) = 9.19	(JRC x CRC) F(1,196) = 4.53
Trustworthy	37.50 (28.40)	34.00 (23.53)	33.26 (28.85)	30.33 (24.13)	38.10 (33.52)	24.73 (18.47)	29.36 (22.71)	29.52 (20.96)	nil	nil
Acc. Referral	81.54 (15.93)	77.07 (23.16)	77.57 (27.04)	84.96 (20.09)	80.57 (25.60)	77.42 (22.81)	64.36 (27.28)	74.61 (22.54)	nil	(JRC x CRC) F(1,201) = 5.01

JRC - Consistency of judged referral; CRC - Consistency of comparison referral; CC - Comparative context

Significant interactions between consistency of judged referral and consistency of comparison referral were observed for professional standard, $F(1,196) = 4.53$, $p < 0.05$), and for acceptance of the referred client, $F(1,201) = 5.01$, $p < 0.05$), items 10 and 12 respectively. Respondents receiving a consistent judged referral rated the judged referral as far more professional when the comparison referral was consistent (mean = 48.16, sd = 30.44), than inconsistent (mean = 33.72, sd = 26.54). In contrast, respondents receiving an inconsistent judged referral rated that referral as marginally more professional when the comparison referral was inconsistent (mean = 30.06, sd = 26.34), than consistent (mean = 28.10, sd = 20.21). Finally, respondents receiving a consistent judged referral indicated they were more inclined to accept the referred client when the comparison referral was also consistent (mean = 82.38, sd = 20.76), than inconsistent (mean = 75.18, sd = 22.98). Conversely, respondents receiving an inconsistent judged referral were more likely to accept the referred client when the comparison referral was inconsistent (79.72, sd = 21.31), than consistent (73.20, 27.16). There were no other significant results arising from these univariate analyses.

It is important to note that there was no effect for comparative context on either multivariate or univariate analyses of variance.

Data reduction

In an attempt to reduce and simplify the body of data, a factor analysis was conducted. The variable clusters contributing to each factor made neither common nor intuitive sense. Since no further clarity was gained through the data reduction afforded by factor analysis, the discussion will concentrate upon the raw results presented thus far. Full details of the factor analysis and the subsequent analyses of variance are in Appendix F.

Correlational analyses

The second theoretically derived hypothesis predicted a specific relationship between identification with a source, and acceptance of that information. Although not significantly evidenced in the analyses of the experimental design, a correlational analysis allows for a more detailed and coherent analysis. It is this relationship between individual clinicians' degrees of identification with the judged referral source, and their subsequent ratings of that source's referral that is of interest in this paper. Identification with the judged source is treated as a continuous variable.

In the first instance, all identification and questionnaire item scores were averaged over all experimental (comparative context, internal consistency) conditions. The overall correlation between participants' identification with the judged referral source, and the average of the 10 questionnaire items (which cumulatively represent acceptance of information in the judged referral), was significant ($r = 0.604$, $p < 0.000$). When each item was considered individually, all but two were significantly correlated with the participants' identification with the judged referral source. Since there were such strong correlational relationships, the same figures were calculated for each of the eight experimental conditions. Table 4 presents these figures.

Ten standard multiple regressions were performed between each of the 10 questionnaire items and comparative context, consistency of judged referral, consistency of comparison referral, identification with judged source, and identification with comparison source. Table 5 displays R, R^2, adjusted R^2, degrees of freedom, F, significance (p), standard error of estimate, significant variables in final regression equation, and their semi-partial correlations. Additional details of the regression analyses are in Appendix F.

Table 4.
Correlations between participants' identification with the judged referral source and each questionnaire item : Overall and for each experimental condition. (r)

Context *Judged Ref* *Comp Ref* Item	*Extended* *Consis* *Consis*	*Extended* *Consis* *Inconsis*	*Extended* *Inconsis* *Consis*	*Extended* *Inconsis* *Inconsis*	*Restricted* *Consis* *Consis*	*Restricted* *Consis* *Inconsis*	*Restricted* *Inconsis* *Consis*	*Restricted* *Inconsis* *Inconsis*	Collapsed across conds
Diagnosis	.311	.041	.483**	.458	.333	.293	.691**	.478*	.539**
Treatment	.093	.058	.360	.567**	.416	.510*	.577**	.619**	.383**
Usefulness	.265	-.183	.429*	.327	.114	.456	.353	.526*	.288**
Accuracy	.123	.057	.379	.540*	-.014	.384	.595**	.333	.250**
Weight given	.197	-.092	.030	.633**	.215	.447	.106	.216	.221**
Ppn Accepted	.063	.410	-.015	.488*	.212	.264	.319	-.059	.147
Joint Mgt	.510**	.031	.275	.496*	.267	.457**	.365	.248	.340**
Prof. Std	.456**	.151	.491**	.567**	.338	.534*	.690**	.558**	.449**
Trustworthy	.455**	.312	.357	.437	.225	.528*	-.324	.175	.311**
Acc. Referral	.176	-.152	.116	.106	-.235	.150	.116	.516*	.151*
Average	.572**	.223**	.595**	.796**	.542**	.690**	.702**	.673**	.604**

** significant at $p < 0.01$
* significant at $p < 0.05$

Table 5.
Standard multiple regression of comparative context, consistency and identification variables on each questionnaire item

Item	R	R^2	Adj. R^2	F (5,211)	p <	Std. Error Estimate	Significant Variables in Final Equation	Semi-partial correl'n	p <
Diagnosis	0.409	0.167	0.147	8.489	0.000	19.961	Identification with judged source	0.265	0.000
							Consistency of judged referral	0.300	0.000
Treatment	0.406	0.165	0.145	8.335	0.000	20.966	Identification with judged source	0.197	0.002
							Consistency of judged referral	0.310	0.000
Usefulness	0.324	0.105	0.841	4.966	0.000	23.231	Identification with judged source	0.299	0.000
Accuracy	0.254	0.065	0.042	2.915	0.014	20.028	Identification with judged source	0.238	0.000
Weight given	0.207	0.043	0.020	1.891	0.097	19.363	Identification with judged source	0.197	0.003
Ppn Accepted	0.159	0.026	0.002	1.108	0.357	24.912	Identification with judged source	0.155	0.023
Joint Mgt	0.321	0.103	0.082	4.837	0.000	23.137	Identification with judged source	0.281	0.000
Prof. Std	0.451	0.202	0.183	10.724	0.000	24.893	Identification with judged source	0.208	0.003
							Consistency of judged referral	0.413	0.000
Trustworthy	0.319	0.102	0.081	4.809	0.000	22.893	Identification with judged source	0.299	0.000
Acc. Referral	0.188	0.035	0.012	1.552	0.175	23.660	Identification with judged source	0.161	0.017

From Table 5 it can be seen that for each of the 10 items of the questionnaire, identification with the judged referral source contributed most greatly (and significantly) to the determination of the final rating score. For three of the items (diagnosis, treatment and professional standard), consistency of the judged referral also explained a significant amount of the variance in their ratings. Certainly it can be stated that participants' ratings of the validity and acceptability of information in the judged referral is closely linked to their individual identification with the judged referral source itself, and to this end, support for the second experimental hypothesis established.

DISCUSSION

The hypotheses of this paper were twofold. First it was hypothesised that the perceived relationship between a referral source and a clinical psychologist would vary with the comparative context within which that source was presented. Specifically, it was predicted that clinicians' identification with a judged referral source could be experimentally manipulated by varying the comparative context. The second hypothesis was that clinical psychologists' acceptance of the judged referral would vary with the relationship between the judged referral source and themselves. It was expected that clinicians' judgements of the referral would be positively influenced by the extent to which they identified with that referral source. Both hypotheses were supported by the results of this study, and will be discussed in detail presently.

In order to test the above hypotheses, registered clinical psychologists were asked to evaluate (on a number of questionnaire items) a referral from a constant referral source. This judged referral was accompanied by another referral, forming either an extended or a restricted comparative context. The internal consistency of all referrals was counter balanced across all conditions. A pilot study was conducted,

and the identity of the three experimental referral sources determined. General medical practitioners were identified as the professional group most consistently rated as moderately far from clinicians. Scientologists, and family and child clinical psychologists were identified as the professional groups rated most consistently as far from and close to clinicians, respectively. On the basis of the pilot study, it was expected that participants of the main study (different clinical psychologists) would identify more with the family and child clinical psychologists than the scientologists. This expectation was upheld, confirming the appropriateness of the experimental referral sources (family and child psychologists, general practitioners, and scientologists) for use in the main study.

The first hypothesis, regarding the impact of the comparative context upon the identification of a clinician with the judged referral source, was clearly supported by the results of this study. When clinical psychologist participants received the judged referral in an extended comparative context (that is, accompanied by a referral from an extreme source on the dimension of good clinical psychological practice), there was significantly greater identification with the judged referral source than when that same source appeared in a restricted comparative context.

Although the second hypothesis was not directly supported in analysis of the experimental design, solid evidence for the relationship between clinician identification with the judged referral source and subsequent clinician judgement of that referral was found in correlational analyses. Traditionally, regression analysis is viewed as correlational, and statements of causal direction generally cannot be made. It could, prima facie, be suggested that acceptance of the referral information resulted in identification with the referral source. There is, however, independent evidence (hypothesis one), that clinicians' identification with the judged referral source varied, in a predicted manner, as a result of causal processes already identified. It was established that participants' self-categorisations and identification

with the judged referral source varied as a result of experimental manipulation of the comparative context. Clinicians' subsequent acceptance of information from the judged referral source also varied systematically, as theoretically predicted, with their identification with the source, is therefore accepted as causal. It is concluded therefore, that the second hypothesis is also supported by the results of this study.

It would be optimal to draw an unequivocal causal conclusion. It is therefore of concern that the expected effect was not found in the initial analysis (of variance) of the experimental design. With hindsight, it is suggested that the introduction of the internal consistency control variable may have been an unnecessary complication. It was predicted that acceptance of information from the judged referral source would be greater when it was internally consistent than internally inconsistent. It was also predicted that participants' evaluation of the judged referral would be most favourable when the comparison referral was internally inconsistent. Results supported both these predictions.

Further, this research was exploratory and not confirmatory. These hypotheses have not been previously tested in the clinical professional arena. A review of the literature yielded no established protocol of a 'good referral' to clinical psychologists. The nature of the 10 items assessing acceptance/judgement of referral information were derived from informal personal communication with practicing clinical psychologists. They were, essentially, educated guesses. The fact that the results supported experimental hypotheses is extremely encouraging. Additional pilot testing to ascertain exactly which elements of a clinical referral are of concern and importance to a clinical psychologist is likely to result in more discerning dependent variables. Were this the case, it is expected that future replication of this research would produce further, unequivocal, support for the present hypotheses.

There are no obvious reasons why the results of this study cannot be generalised from the 217 member sample to the population of Australian clinical psychologists. There were no outstanding features of those participants who did respond that might set them aside from their peers who chose not to participate. There is no information on the 61% who chose not to participate in the research. It is suggested that other health professionals, especially specialists who regularly receive client information from referral sources, may be subject to the same influences of the perceived identity of the referral source. It is the case that psychiatrists, for example, have been the subject group of many of the information processing bias and heuristic studies mentioned in the introduction of this paper. It would be sensible then, for this professional group, at least, to be the focus of a similar investigation as presented in this paper.

Notwithstanding the above criticisms and future research recommendations, the two primary hypotheses of this paper were confirmed. There are wide-reaching implications. At a micro-level, the results of this study provide support for Turner's (1991) analysis of social influence. Additionally, this study illustrates that the processes inspiring self-categorisation theory are measurable in the 'real' world beyond the laboratories of social psychologists. It is held that ingroups (those groups an individual chooses to identify with) exert more influence than outgroups. It has been demonstrated that the extent to which an individual identifies with a particular group can vary with the comparative context. An individual can be influenced by a ingroup even in the absence of that group. This is hypothesised to occur because when an individual identifies with a group they take on some of the morals, standards, and values of that group. Those morals, standards and values are held by the individual to be 'true' in some absolute sense, especially in contrast with other groups the individual does not identify with. Therefore, when an individual is faced with information from a group with whom they identify, they are more likely to accept that information as accurate, true or valid. This analysis of

social influence was upheld by the results of the present study. It was shown that comparative context has an effect upon participants' identification with a judged information source, and also that this identification moderated participants' subsequent acceptance and evaluation of the information imparted.

At a macro-level, these results hold implications for practicing clinical psychologists, and other professionals dealing with clients. For the sample of 217 registered clinical psychologists in Australia who chose to participate, there was a particular relationship between a clinician's identification with a referral source and their subsequent acceptance of information in that source's referral. Specifically it was found that the comparative context had an effect upon a clinician's relationship with a referral source. This relationship was such that a clinician typically identified with a moderate referral source more when that source was in an extended comparative context than a restricted comparative context. Further, the extent to which a clinician identified professionally with a referral source positively influenced the clinician's subsequent assessment of the referral.

Far from weakening the implications of this group differences study, the existence of distinct individual differences means that the results of this study are all the more pertinent. There is not a unique warning that can be issued, or one single strategy incorporated into clinical training to 'vaccinate' clinicians from engaging in these processes. What can be done, however, is to encourage clinical psychologists to become more aware of these normal and common processes so they are less likely to be unwittingly influenced by them. Such an awareness raising exercise can be achieved through means similar to those used in ameliorating the effects of other known information processing and personal biases.

Insight at an individual (personal) level means that each clinician is aware of their own level of identification with sources of clinical information. It is then a simple

step for a clinician to 'double check' their opinion/acceptance of information coming from a particular source, knowing that they might be influenced by its origin (Hutton & Baumeister, 1992). Insight at a collective (professional) level means that potential influences of the any information source and its relationship with the recipient clinician are afforded the same recognition as other information processing biases, heuristics and processes. This might be achieved by inclusion in postgraduate training courses, and ongoing professional development courses. Of course, for these findings to have an effect, the link between research and clinical practice needs to be maintained (see Barlow, Hayes and Nelson, 1984 for discussion and overview of the Scientist-Practitioner model). That is to say, results such as those in this paper need to be published, and practitioners need to seek them out.

Despite the ominous tone of the above discussion, not all is negative in clinical psychologists' quest for objectivity. The social psychological phenomenon demonstrated in this study is a human tendency, not a process unique to clinical psychologists. Further, with all the experience and training such professionals have (current requirements - four year undergraduate degree, additional two year postgraduate degree, further two years additional clinical supervision), clinical psychologists are likely to be reasonably well acquainted with their own interpersonal processes. This was borne out in the actual scores of the ratings made by participants of this study. Although there were group differences between conditions, the absolute scores were very low (see Table 3, 34), indicating a reluctance to condone a diagnosis or treatment plan, or accept information before or without seeing the client first hand. This was also supported strongly in the additional comments some participants chose to include.

That at least some of the clinical psychologists who chose to participate in this study are aware of the connection between identification with a referral source and

subsequent rating of the referral information is evidenced by their comments :

> "the referral is appropriate irrespective of my personal feelings about scientology" (extended comparative context, both referrals inconsistent)
>
> "this is a function of my knowledge of scientology rather than the contents of the referral letter" (extended comparative context, both referrals inconsistent)
>
> "bias against source" (extended comparative context, both referrals inconsistent)
>
> "good professional practice should be largely unaffected by the source of a referral" (extended comparative context, both referrals inconsistent)
>
> "the scientology referral seemed equally as good as the general practitioner's referral and I would be inclined to accept it. Other than my negative professional identification with scientologists I think that my answers would have been the same as for the general practitioner's questions" (extended comparative context, judged referral inconsistent, comparison referral consistent)
>
> "referral is sensible, but I have no time for scientologists" (extended comparative context, judged referral consistent, comparison referral inconsistent)
>
> "identification with an agency does not nullify or enhance its status" (extended comparative context, judged referral consistent, comparison referral inconsistent)

This current level of self-awareness is laudable. It needs to continue to grow, both within individuals, and across more individuals. Further, there needs to an additional realisation that, not only does an individual's identification with the referral source of clinical information have implications, but that the relationship

between a source and a recipient of (any) information is not static - that it is contextually defined. When this is achieved, clinical psychologists, as a professional group, will be a large step closer to claiming objectivity in their clinical judgements and decision making processes.

Returning to the perennial clinical versus actuarial prediction debate, consider the following. The actuarial approach is an important aspect of good clinical practice. In pragmatic terms the actuarial approach is currently accepted as a subset of comprehensive and quality clinical practice. Clinical psychologists are presently trained, for example, to continually refer to, employ and contribute to the growing body of clinical knowledge. Predictive tools, including actuarial methods, form a part of this body of knowledge. Clinical judgement is affected by more than information processing biases and heuristics. Clinicians are embedded in a larger context - their own (continually changing) professional comparative context. This research has established that comparative social context affects psychologists' identification with a source of clinical information. Further, acceptance of information is mediated by identification with the source. Far from simply highlighting the need to be aware of yet another heuristic or bias, these results suggest that the existing clinical approach to judgement and decision making is a subset of an even larger context - the social environment in which all people, clinicians included, operate.

The primary point of this research therefore, is that the relationship between a clinician and the source of client information - including the client her or himself - forms a greater context. The world in which the clinician operates includes groups, and the clinician has multiple shared social identities varying systematically with the comparative context at any given time. It should be no surprise to find that judgements about clinical information are subject to the same group processes as all human judgements. It has been demonstrated in this paper that clinical judgement

varies with social comparison and social context.

In summary, it was established that the degree to which an individual clinician identifies with a constant referral source is dependent upon the comparative context in which that referral is presented. This study has provided support for the notion that the relationship between the referral source and the clinician receiving the information will impact upon that clinician's subsequent acceptance of that information as valid. The extent to which a clinical psychologist identifies with a referral source will influence the extent to which they accept information from that source.

These findings had implications both on a theoretical and a practical level. With respect to Turner's (1987) self-categorisation theory - in which the theoretical basis of this study was embedded - these results offered further support, and demonstrated that such processes are measurable in professional clinical settings. On a practical dimension, the message for practicing clinical psychologists is that there is yet another influence upon the decision making process that needs to be acknowledged and personally explored. Social psychologists have known for decades that the relationship between the source and the recipient of some information has an effect upon the subsequent acceptance/judgement of that information. This concept has substantially fuelled classic areas of social psychological research and literature - polarisation and minority influence for example. To accept that all human judgements are inherently social, is to accept that clinical psychologists (and other professionals) making clinical judgements are also affected by their social identities and contexts.

It is not surprising that social judgements subsume clinical judgements, which in turn subsume actuarial judgements. Just as the actuarial method of making clinical decisions does not account for individual clinician differences, the clinical method does not account for the social context and changing relationships between people. Clinicians are social beings, occupying social spaces. There are implications of that

social context upon a clinicians' own identity, on their perception of others' identities, and on their professional relationships. In turn, there are implications for their assessment of information received in a social context - and information is never in a social vacuum. It is only in the wake of self-awareness and the acknowledged embrace of their wider social context that clinical psychologists can continue to strive for consistency and objectivity in their clinical judgements in spite of the individual and social influences such as those discussed in this paper.

BIBLIOGRAPHY

American Psychiatric Association. (1994). Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition. Washington D.C. : American Psychiatric Association.

Barlow, D.H., Hayes, S.C. & Nelson, R.O. (1984). The Scientist Practitioner : Research and Accountability in Clinical and Educational Settings. Massachusetts : Allyn & Bacon.

Barok, A. & Fisher, W.A. (1989). Counsellor and therapist gender bias? More questions than answers. Professional Psychology Research and Practice, 20(6), 377-383.

Bem, D.J. & Allen, A. (1974). On predicting some of the people some of the time : The search for cross-situational consistencies in behaviour. Psychological Review, 81, 506-520.

Berman, J.S., Read, S.J, & Kenny, D.A. (1983). Processing inconsistent social information. Journal of Personality and Social Psychology, 45, 1211-1224.

Brewin, C.R. (1984). Perceived controllability of life events and willingness to prescribe psychotropic drugs. British Journal of Social Psychology, 23, 285-287.

Broadbent, D.E. (1958). Perception and Communication. Oxford : Permagon Press.

Cantor, N. (1982). "Everyday" versus normative models of clinical and social judgement. In G. Weary & H.L. Mirels (Eds.), Integrations of Clinical and Social Psychology. New York : Oxford University Press.

Clark, R.D. & Maass, A. (1988a). Social categorisation in minority influence : The case of homosexuality. European Journal of Social Psychology, 18, 347-364.

Hammond, K.R. (1980). The Integration of Research in Judgement and Decision Theory. Boulder : University of Colorado.

Hart, S.D., Webster, C.D. & Menzies, R.J. (1993). A note on portraying the accuracy of violence predictions. Law and Human Behaviour, 17(6), 695-700.

Haslam, S.A. & Turner, J.C. (1992). Context-dependent variation in social stereotyping 2 : The relationship between frame of reference, self-categorisation, and accentuation. European Journal of Social Psychology, 22, 251-277.

Haslam, S.A., Turner, J.C., Oakes, P.J., McGarty, C. & Hayes, B.K. (1992). Context-dependent variation in social stereotyping 1 : The effects of intergroup relations as mediated by social change and frame of reference. European Journal of Social Psychology, 22, 3-20.

Heider, F. (1958). The Psychology of Interpersonal Relations. New York : Wiley.

Hogg, M.A., Hardy, E.A. & Reynolds, K.J. (1995). Prototypical similarity, self-categorisation, and depersonalised attraction : A perspective on group cohesiveness. European Journal of Social Psychology, 25(2), 159-177.

Hogg, M.A. & Turner, J.C. (1987). Intergroup behaviour, self-stereotyping and the salience of social categories. British Journal of Social Psychology, 26, 325-340.

Hutton, D.G. & Baumeister, R.F. (1992). Self-awareness and attitude change : Seeing oneself on the central route to persuasion. Personality and Social Psychology Bulletin, 18(1), 68-75.

Jenkinson, J. (1991). Restrictions on the use of psychological tests : Who should use what? Australian Psychologist, 26(1), 19-24.

Jordan, J.S., Harvey, J.H., & Weary, G. (1988). Attributional biases in clinical decision making. In D.C. Turk & P. Salovey (Eds.), Reasoning, Inference, & Judgement in Clinical Psychology. New York : Free Press.

Kelman, H.C. & Hovland, C.I. (1953). Reinstatement of the communications in delayed measurement of opinion change. Journal of Abnormal and Social Psychology, 48, 327-335.

Keisner, R.H. (1985). Self-fulfilling prophesies in psychodynamic practice. In L.Y. Abramson (Ed.), From Research to Clinical Practice. New York : Plenum.

Kleinmuntz, B. (1968). The processing of clinical information by man and machine. In B. Kleinmuntz (Ed.), Formal Representation of Human Judgement. New York : Wiley.

Langer, E.J. & Abelson, R.P. (1974). A patient by any other name... : Clinical group differences in labelling bias. Journal of Consulting and Clinical Psychology, 42, 4-9.

Levine, B.A. (1987). The importance of checking the assumptions of the professional referral source. Journal of Behavioural Theory and Experimental Psychiatry, 18(3), 241-244.

Lewis, D.O., Shanok, S.S., Cohen, R.J., Klingfeld, M. & Frisone, G. (1980). Race bias in the diagnosis and disposition of violent adolescents. American Journal of Psychiatry, 137(10), 1211-1216.

Mackie, D.M. (1986). Social identification effects in group polarisation. Journal of Personality and Social Psychology, 50(4), 720-728.

Mackie, D.M. & Cooper, J. (1984). Attitude polarisation : Effects of group membership. Journal of Personality and Social Psychology, 46(3), 575-585.

Mackie, D. M., Gastardo, C.M.C., Skelly, J.J. (1992). Knowledge of the advocated position and the processing of ingroup and outgroup persuasive message. Personality and Social Psychology Bulletin, 18(2), 145-157.

Mackie, D.M., Worth, L.T. & Asuncion, A.G. (1990). Processing of persuasive ingroup messages. Journal of Personality and Social Psychology, 58(5), 812-822.

MacMann, G.M., Barnett, D.W. & Lombard, T.J. (1989). On the actuarial classification of children : Fundamental studies of classification agreement. Journal of Special Education, 23(2), 127-149.

Mahoney, M.J. (1988). Rationalism and constructivism in clinical judgement. In D.C. Turk & P. Salovey (Eds.), Reasoning, Inference, & Judgement in Clinical Psychology. New York : Free Press.

McGuire, W. (1969). The nature of attitude and attitude change. In G. Lindzay & E. Aronson (Eds.), Handbook of Social Psychology (III). New York : Addison Wesley.

McGuire, W. (1985). Attitudes and attitude change. In G. Lindzay & E. Aronson (Eds.), Handbook of Social Psychology (II). New York : Random House.

McKinley, J.C., Hathaway, S.R. & Meehl, P.E. (1948). The MMPI : VI. The K scale. Journal of Consulting Psychology, 12, 20-31.

Meehl, P.E. (1954). Clinical versus Statistical Prediction : A Theoretical Analysis and a Review of the Evidence. Minneapolis : University of Minnesota Press.

Meehl, P.E. (1960). The cognitive activity of the clinician. American Psychologist, 15, 19-27.

Mills, J. & Aronson, E. (1965). Opinion change as a function of communicators' attractiveness and desire to influence. Journal of Personality and Social Psychology, 2, 152-159.

Nisbett, R.E. & Ross, L. (1980). Human Inference : Strategies and Shortcomings of Social Judgement. Englewood Cliffs, NJ : Prentice-Hall.

Oakes, P.J, Turner, J.C. & Haslam, S.A. (1991). Perceiving people as group members : The role of fit in the salience of social categorisations. British Journal of Social Psychology, 30, 125-144.

O'Donohue, W.T., Curtis, S.D. & Fisher, J.E. (1985). The use of research in the practice of Community Mental Health : A case study. Professional Psychology : Research and Practice, 16, 710-718.

O'Donohue, W.T., Fisher, J.E., Plaud, J.J. & Link, W. (1989). What is a good treatment decision? The client's persective. Professional Psychology : Research and Practice, 20(6), 404-407.

Pavkov, T.W., Lewis, D.A. & Lyons, J.S. (1989). Psychiatric diagnosis and racial bias : An empirical investigation. Professional Psychology Research and Practice, 20(6), 364-368.

Penrod, S. (1983). Social Psychology. Englewood Cliffs, NJ : Prentice-Hall.

Phares, E.J. (1984). Clinical judgement : Process, accuracy, and communication. In E.J. Phares (Ed.), Clinical Psychology : Concepts, Methods, and Profession. Ontario : The Dorsey Press.

Pritchard, D.A. (1980). Apologia for clinical/configural decision making. American Psychologist, 35(7), 676-678.

Quadrio, C. (1992). Sex and the gender impaired therapist. Australian and New Zealand Journal of Psychiatry, 24, 346-363.

Rosch, E. & Mervis, C.B. (1975). Family resemblance studies in the internal structure of categories. Cognitive Psychology, 7, 573-605.

Rosenhan, D.L (1973). On being sane in insane places. Science, 179, 250-258.

Roskos, E.D.R. & Fazio, R.H. (1992). The accessibility of source likability as a determinant of persuasion. Personality and Social Psychology Bulletin, 18(1), 19-25.

Salovey, P. & Turk, D.C. (1988). Some effects of mood on clinicians' memory. In D.C. Turk & P. Salovey (Eds.), Reasoning, Inference, & Judgement in Clinical Psychology. New York : Free Press.

Sampson, E.E. (1991). Social Worlds - Personal Worlds. New York : Harcourt Press Joranovich Publishers.

Schier, M.F., Carver, C.S., & Gibbons, F.X. (1981). Self-focussed attention and reactions to fear. Journal of Research in Personality, 15, 687-699.

Schön, D.A. (1993). From technical irrationality to reflection-in-action. In J. Dowie & A. Epstein, (Eds.), Professional Judgement. UK : Cambridge University Press.

Schopler, J. & Layton, B. (1972). Determinants of the self-attribution of having influenced another person. Journal of Personality and Social Psychology, 29, 609-618.

Simon, B., Pantaleo, G. & Mummendey, A. (1995). Unique individual or interchangeable group member? The accentuation of intragroup differences versus similarities as an indication of the individual self versus the collective self. Journal of Personality and Social Psychology, 69(1), 106-119.

Slovic, P. & Lichtenstein, S. (1971). Comparison of baysian and regression approaches to the study of information processing in judgement. Organisational Behaviour and Human Performance, 6, 648-744.

Smith, A.F. (1988). Perceiving the client. In D.C. Turk & P. Salovey (Eds.), Reasoning, Inference, & Judgement in Clinical Psychology. New York : Free Press.

Snyder, M. (1981). Seek and ye shall find : Testing hypotheses about other people. In E.T. Higgins, C.P. Herman, M.P. Zanna (Eds.), Social Cognition : The Ontario Symposium (Vol. 1). Hillsdale, NJ : Erlbaum.

Snyder, M. & Gangestead, S. (1981). Hypothesis-testing processes. In J.H. Harvey, W. Ickes, & R.F. Kidd (Eds.), New Directions in Attribution Research (Vol. 3). Hillsdale, NJ : Erlbaum.

Snyder, M., Tanke, E.P. & Bercheid, E. (1977). Social perception and interpersonal behaviour : On the self-fulfilling nature of social stereotypes. Journal of Personality and Social Psychology, 35(9), 656-666.

Snyder, M. & Thomson, C.J. (1988). Interactions between therapist and clients : Hypothesis testing and behavioural confirmation. In D.C. Turk & P. Salovey (Eds.), Reasoning, Inference, & Judgement in Clinical Psychology. New York : Free Press.

Spitzer, R.L. (1983). Psychiatric diagnosis : Are clinicians still necessary? Comprehensive Psychiatry, 24(5), 399-411.

Turk, D.C., Salovey, P., & Prentice, D.A. (1988). Psychotherapy : An information-processing perspective. In D.C. Turk & P. Salovey (Eds.), Reasoning, Inference, & Judgement in Clinical Psychology. New York : Free Press.

Turner, J.C. (1991). Social Influence. Suffolk : Open University Press.

Turner, J.C., Hogg, M.A., Oakes, P.J., Reicher, S.D. & Wetherall, M.S. (1987). Rediscovering the Social Group : A Self-Categorisation Theory. Oxford : Basil Blackwell.

Turner, J.C. & Oakes, P.J. (1989). Self-categorisation theory and social influence. In P.B. Paulus (Ed.), Psychology of Group Influence. New Jersey : Lawrence Erlbaum Associates, Publishers.

Turner, J.C., Oakes, P.J., Haslam, S.A. & McGarty, G. (1994). Self and collective : Cognition and social context. Personality and Social Psychology Bulletin, 20(5), 454-463.

APPENDICIES

APPENDIX A1
Pilot study

This pilot study was conducted in order to determine the identity of the three referral sources for the experiment proper.

Method

Participants

The 11 participants used in this pilot study comprised three fully trained clinical psychologists and eight final year clinical psychologist students.

Measures

A self-report questionnaire containing eight items was purpose designed for this study. A table of 32 mental health, health and allied occupations was presented and the first six items required the participant to rate each occupation with respect to a particular question. A rating of 0 would indicate that the occupation was not rated as similar to the participant on the particular dimension. Conversely, a rating of 100 would indicate that the participant rated that occupation as very close to themselves. The final two questions investigated the importance of the initial referral for subsequent assessment of the client. These questions were designed to elicit participants' professional relationships with, and attitudes towards persons in the listed occupations. A copy of the questionnaire is provided in Appendix A2. Although not yet validated elsewhere, this measure had good internal reliability, with Cronbach $\alpha = .92$ and split-half reliability = .958. The order of presentation of the 32 occupations was individually randomised for all participants.

Procedure

Participants were personally and individually contacted and given a brief verbal description of what would be required of them. Participants were not aware of the purpose of the questionnaire, nor of the main experiment for which this questionnaire played a pilot function. The questionnaire took approximately 20 minutes to complete,

after which the nature of the experiment was explained to the participants. The data was entered into a database and kept confidential.

Results

Difference between fully trained and final year clinical psychologists

A 2(level of training) x 32(occupation) repeated measures ANOVA was conducted in order to determine whether there were any differences between the responses of the two groups of participants, and between the 32 occupational groups. At a significance level of α=0.01, there was no significant difference between the responses of the two groups of participants ($F(1)=0.046$, $p=0.834$), although there was a significant main effect for occupation type ($F(31)=44.236$, $p=0.000$). The level of training and occupation factors did not interact significantly ($F(31)=1.575$, $p=0.030$). Since there was no difference between the responses of the two subgroups of participants, their respective data were collapsed and used as though from one homogeneous group.

Differences between ratings of occupations (mean)

The ratings given to the various occupations by participants in response to the first five items of the questionnaire (see Appendix A) were averaged to obtain an overall measure of 'closeness in identity' to the participants' professional identities. The average ranking of occupations from closest to participants' professional identities (100) to furthest from participants' professional identities (0) are presented in Table 1 overpage.

In an overall rating range of 0 to 100, the occupations can be grouped as follows :

80 - 100	Occupations close to participants' professional identities
40 - 60	Occupations moderately far away/close to participants' professional identities
0 - 20	Occupations distant from participants' professional identities

The occupations that fall into these groupings are presented graphically in Figure 1. Prima facie then, it would seem that the occupations of cognitive-behavioural clinical

psychologist, industrial and/or organisational psychologist, and scientologist (with ratings of 90.61, 52.47 and 4.03 respectively) should be chosen.

Table 1.
Descriptive statistics of the average of the first five questionnaire items

Occupation	Abbrev.	Mean	Minimum	Maximum	Std.Dev.
Cog beh clin. psych.	CBCP	90.62	74	100	8.29
Family & child psych.	FCP	89.85	80	98	5.50
Private clin. psych.	PCP	88.84	69.8	96.8	8.51
Beh. clin. psych.	BCP	88.11	57	96.2	11.12
Private psychiatrist	PP	75.62	50	90	10.93
Neuropsychologist	NPG	74.24	46	95	15.83
Neuropsychiatrist	NPT	70.00	42	93	17.44
Rogerian clin. psych.	RCP	68.91	44	88	13.22
Lecturer of psychiatry	LPT	68.00	26	83	16.02
Lecturer of psychology	LPG	64.95	34	86	16.43
School counsellor	SC	62.11	32	84.2	15.44
Social worker	SW	59.76	40	92	14.69
Psychoanalyst	PS	57.51	30	87	17.04
Court counsellor	CC	55.75	32	78	16.58
Registrar	R	54.85	0	86	25.40
Psychiatric Nurse	PN	52.80	20	86	18.43
Indust./organiz. psych.	IO	52.47	32	85.2	16.06
General medical practit.	GMP	50.82	31	62	10.10
Four year psych.	FYP	50.18	20	75	16.48
Occupational therapist	OT	45.02	22	66	14.55
Registered nurse	RN	35.84	10	52.6	12.99
Physiotherapist	PH	31.51	1	65	22.27
School principal	SP	30.33	1	56	18.43
Priest/minister	PM	28.40	4	64.8	17.40
Personnel officer	PO	23.27	4	60.6	18.40
Dream therapist	DT	22.69	5	64	17.88
Aromatherapist	AR	17.07	0	36	13.28
Palmist & tarot reader	PTC	11.20	0	28	10.20
Iridologist	I	7.95	0	20	6.20
Astrologist	AST	5.07	0	19	7.51
Crystal therapist	CT	4.56	0	17	5.73
Scientologist	S	4.04	0	12	5.02

Distribution of ratings for occupations (sd)

As can be seen from Figure 1, it is the case that each occupation does not have an equal distribution. Indeed, the standard deviations, as depicted by the whiskers on the plot, vary considerably. In choosing a single occupation from each grouping set, the size of

the standard deviation plays an important role. This data is important in so far as the smaller the standard deviation on any item, and indeed on the averaged five items, the more consistent was the associated rating by all participants. This is of paramount importance for the proper study. Accordingly, the occupations in each group were more closely examined.

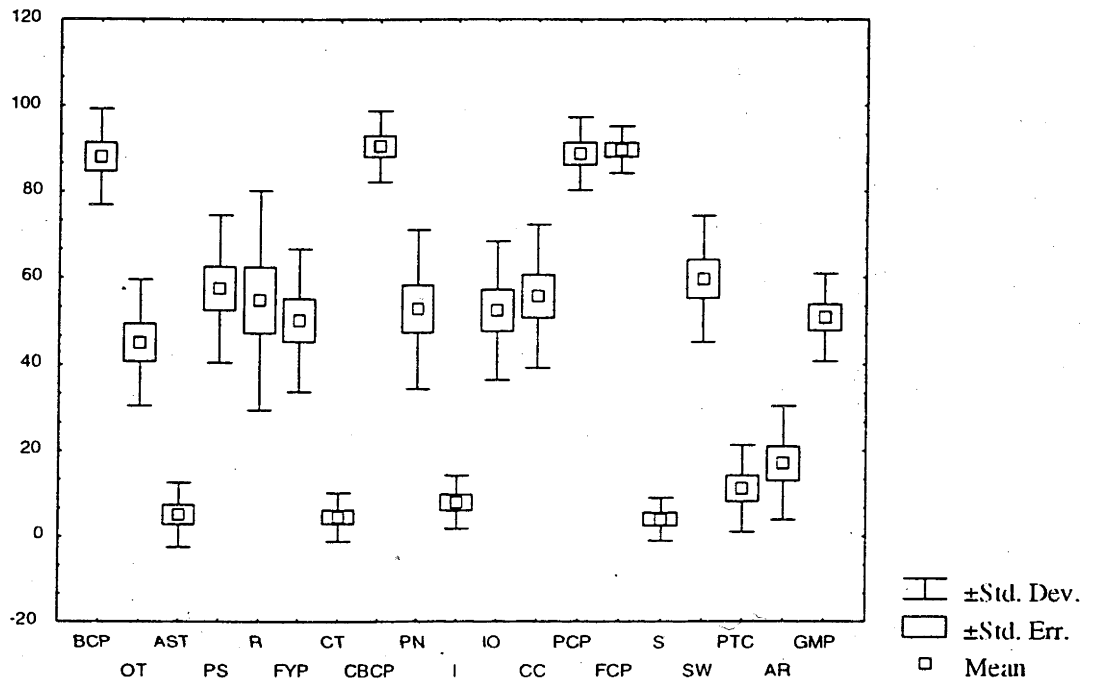


Figure 1. Box and whisker plot of occupations rated as very close, moderately close, and distant from the participants' professional identities.

The mean ratings and standard deviations for each of the groupings can be viewed in the shaded portions of Table 1. A secondary goal is to obtain the occupation within each group with the lowest standard deviation. This second guideline suggests the occupations of family and child clinical psychologist, general medical practitioner, and scientologist (with standard deviations of 5.49, 10.09 and 5.03 respectively) should be chosen.

One further consideration is the fact that the average rating was calculated by averaging five raw questionnaire items. The standard deviations of scores for each occupation on

each of these five items was also investigated. The number of items for which each occupation obtained a standard deviation of less than 20 (1/5 of maximum score) was noted, and appear in Table 2. As mentioned above, this data indicates the consistency of ratings of any given occupation by participants.

So, finally, with considerations of appropriate overall rating, minimum standard deviation, and maximum number of items with standard deviation less than 20, the occupations of family and child clinical psychologist, general medical practitioner, and scientologist should be chosen. These occupations have the maximum, or equal maximum number of items with standard deviations less than 20.

Conclusion

The purpose of this pilot study was to determine three referral source identities for use in the experiment proper. The three identities that were optimal in rating, and minimal in variance were :

(i) Family and child clinical psychologist (consistently closest to professional identity of participants)

(ii) General medical practitioner (consistently moderately close to/far from professional identity of participants)

(iii) Scientologist (consistently furthest from professional identity of participants).

Table 2

Number of questionnaire items (/5) for which occupations obtained standard deviations of less than 20

Occupation	No. items with sd < 20 (/5)	Mean	Std.Dev.
Occupations close to the professional identity of participants			
Cog beh clin. psych.	4	90.62	8.29
Family & child psych.	5	89.85	5.50
Private clin. psych.	4	88.84	8.51
Beh. clin. psych.	5	88.11	11.12
Private psychiatrist	5	75.62	10.93
Occupations moderately close to/ far from the professional identity of Ss			
Social worker	3	59.76	14.69
Psychoanalyst	1	57.51	17.04
Court counsellor	1	55.75	16.58
Registrar	0	54.85	25.40
Psychiatric Nurse	0	52.80	18.43
Indust./organiz. psych.	0	52.47	16.06
General medical practit.	3	50.82	10.10
Four year psych.	2	50.18	16.48
Occupational therapist	1	45.02	14.55
Occupations furthest from the professional identity of Ss			
Aromatherapist	2	17.07	13.28
Palmist & tarot reader	3	11.20	10.20
Iridologist	5	7.95	6.20
Astrologist	5	5.07	7.51
Crystal therapist	5	4.56	5.73
Scientologist	5	4.04	5.02

APPENDIX A2

Pilot Study Questionnaire

Part A.

On the following two pages you will find a list of mental health, health, and allied occupations. I am interested in your professional relationship with, and attitude towards each of these types of persons.

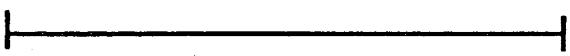
On the following two pages please rate (0-100) the listed occupations in response to each of the questions below...

1. How closely do you, as a clinical psychologist, identify with each of the occupations on the following dimensions :

   1.1 Overall (ie. as providers of mental health services)
   1.2 Professionally (ie. as in the way you conduct yourself, your professional integrity)

Rating scale for questions 1.1 and 1.2 :

I do not identify with this occupation at all. As a clinical psychologist I am vastly different from them.



Rate 0 Rate 100

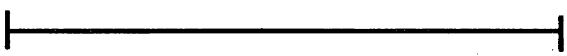
As a clinical psychologist, I identify very strongly with this occupation.

2. Compared to your own work, abilities and training as a clinical psychologist, how do you feel about the abilities of each of the listed occupations, on the following dimensions :

   2.1 Diagnosis
   2.2 Treatment recommendation
   2.3 Implementation of treatment

Rating scale for questions 2.1, 2.2 and 2.3 :

I would have little respect for, and would tend to disagree with their judgements in this area.



Rate 0 Rate 100

I would have much respect for, and would tend to agree with their judgements in this area.

Please rate (0-100) these occupations in response to each of the questions.

OCCUPATION	1.1 Identify with them overall?	1.2 Identify with them professionally?	2.1 Ability to correctly diagnose mental health problems?	2.2 Ability to recommend appropriate treatment?	2.3 Ability to implement treatment?	Would you accept a referral from them? (Y/N)
Crystal Therapist						
Four year degree Psychologist						
Rogerian Clinical Psychologist						
Palmist and Tarot Card Reader						
Scientologist						
Neuropsychologist						
Registrar						
Family and Child Psychologist						
Personnel Officer						
Neuropsychiatrist						
Iridologist						
Psychiatric Nurse						
Social Worker						
Aromatherapist						
Psychoanalyst						
Private Clinical Psychologist						
Dream Therapist						

OCCUPATION	1.1 Identify with them overall?	1.2 Identify with them professionally?	2.1 Ability to correctly diagnose mental health problems?	2.2 Ability to recommend appropriate treatment?	2.3 Ability to implement treatment?	Would you accept a referral from them? (Y/N)
Astrologist						
Physiotherapist						
Registered Nurse						
Occupational Therapist						
General Medical Practitioner						
School Principal						
Lecturer in Psychology (Phd.)						
School Counsellor						
Industrial/Organisational Psychologist						
Court Counsellor						
Cognitive Behav. Clinical Psychologist						
Lecturer in Psychiatry (Phd.)						
Priest/Minister of Religion						
Private Psychiatrist						
Behavioural Clinical Psychologist						

Part B.

Answer the following by making a mark on the scale at the point you feel best represents your position on each question:

1. In general, and on average, how much weight would you give the information in an initial referral, in the context of an entire client assessment?

No weight placed on initial referral at all — Entire assessment based on initial referral

2. In general, and on average, what proportion of information in a referral letter would you accept without question?

Accept none of the information — Accept all of the information

Again, thank you.

Kate Barrelle

The Australian National University
Department of Psychology

APPENDIX B1

Main Study - Cover Letter

Canberra ACT 0200

Telephone (06) 249 3094
Fax : (06) 249 0499

Ref : ***1-8***

Date

Dear *Participant*,

I am a final year Master of Clinical Psychology student at the Australian National University (ANU). My research project involves an assessment of the changing nature of the mental health field. In the last decade there has been an influx of 'mental health professionals' to the field, and with them, an increasing number and variety of therapeutic approaches and strategies. I am interested in *your* response to this. Enclosed you will find a consent form, instructions, two referrals, a series of questions, and a return envelope.

I have the approval and permission of the ANU Psychology Department, the ANU Ethics Committee, and the College of Clinical Psychologists of the APS to conduct this research. I would be very grateful if you would participate. To complete the enclosed questionnaire will take you approximately 15 minutes. Please.

Your responses and your identity are absolutely confidential. Further, after entry of your responses to a database all responses are completely anonymous.

Thank you in anticipation of 15 minutes of your time. Upon completion, the questionnaire, along with the consent form can simply be returned by using the addressed and postage paid envelope enclosed.

Yours sincerely,

_____
Kate Barrelle

- -

Consent to participate

I, *Participant's Name*, voluntarily agree to complete the questionnaire comprising Kate Barrelle's study. I understand that all my responses will be absolutely confidential, and after data entry, will be anonymous.

_____
Signature & Date

Would you like to be informed of the nature and results of this study at its completion?
Please circle : Yes / No

APPENDIX B2

Instructions

(i) For participants receiving extended context comparison referral

Two referrals have been enclosed - one from Northside Scientologists, and one from Northside General Medical Practitioners. The names of the clients and of the actual practitioners who wrote the referrals have been altered from the originals.

Assume that *you* have received these referrals as a part of your regular clinical work. Assume also that the nature of the referrals is such that it is within the jurisdiction of your practice. Please read both referrals carefully as a series of questions about each follow. I am interested in your reaction to, and feelings about these two referrals.

The questionnaire should take no more than 15 minutes to complete. Thank you for your time.

(i) For participants receiving restricted context comparison referral

Two referrals have been enclosed - one from Northside Scientologists, and one from Northside General Medical Practitioners. The names of the clients and of the actual practitioners who wrote the referrals have been altered from the originals.

Assume that *you* have received these referrals as a part of your regular clinical work. Assume also that the nature of the referrals is such that it is within the jurisdiction of your practice. Please read both referrals carefully as a series of questions about each follow. I am interested in your reaction to, and feelings about these two referrals.

The questionnaire should take no more than 15 minutes to complete. Thank you for your time.

APPENDIX B3

Full set of referrals

B3 (i)	Consistent comparison referral (restricted)
B3 (ii)	Consistent comparison referral (restricted)
B3 (iii)	Consistent moderate referral
B3 (iv)	Consistent moderate referral
B3 (v)	Consistent comparison referral (extended)
B3 (vi)	Consistent comparison referral (extended)
B3 (vii)	Inconsistent comparison referral (restricted)
B3 (viii)	Inconsistent comparison referral (restricted)
B3 (ix)	Inconsistent moderate referral
B3 (x)	Inconsistent moderate referral
B3 (xi)	Inconsistent comparison referral (extended)
B3 (xii)	Inconsistent comparison referral (extended)

Referral from

Northside Family & Child Psychologists

CLIENT : Mr. Joseph Watterman
Age : 32
Sex : M
Marital Status : Widowed

I am referring Mr Joseph Watterman to you for treatment of obsessive compulsive disorder. I have already discussed this with him, and he is willing to undertake appropriate treatment. I am hoping you will be able to provide Joseph with educational information regarding OCD, and then conduct a cognitive behavioural exposure and response prevention programme with him.

Joseph is originally from Ireland. Presently he has distressing thoughts concerning the safety of his two young children. Joseph reports that he frequently has thoughts that his children will come to some harm. He has developed certain ways of behaving in order to alleviate anxiety associated with these worries. Joseph sought help after a negative response from his friends regarding these thoughts about his children. Joseph's work is becoming increasingly affected, and his wife is losing patience with him. A brief interview with Joseph revealed that during his childhood his mother was always concerned for the safety of him and his sisters. As a child, Joseph spent four years living in Belfast, and lost his father and eldest sister in bombings.

Thank you in anticipation, for accepting this referral.
Yours sincerely,

A.M. Phillips (B.Sc.M.Clin.Psych.)

Clinical Psychologist

Referral from

Northside Family & Child Psychologists

CLIENT: Mr. James Luccio
Age : 73
Sex : M
Marital Status : Widowed

I am referring Mr James Luccio to you for treatment of dementia. I have already discussed this with his family and they are willing to cooperate where necessary. I am hoping you will be able to provide Mr Luccio's family with educational information regarding dementia. It is anticipated that intensive behavioural therapy with the client in his permanent environment, along with reality orientation therapy may facilitate a more comfortable lifestyle for him.

Following the recent death of his wife, Mr Luccio has recently moved from his son's family home into a nursing home. Mr Luccio presently has difficulties with orientation, planning activities, memory of faces and names, and is totally uninterested in his new surroundings. Mr Luccio's son, who has been the primary carer for his parents for a number of years, reported that both parents have been 'slowing down' over the last 18 months. Even before the violent death of his wife, Mr Luccio had become listless and 'retreated into a world of his own', speaking often of his own death. Mr Luccio has refused to acknowledge his wife's death, and since this time has displayed a further decline in his level of functioning.

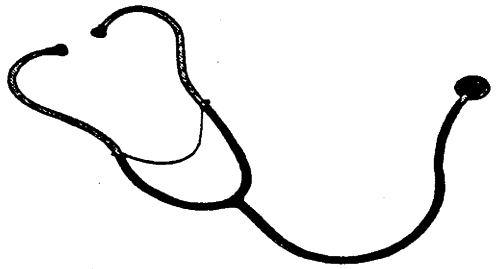
Thank you in anticipation, for accepting this referral.
Yours sincerely,

A.M. Phillips (B.Sc.M.Clin.Psych.)

Clinical Psychologist

Referral from

Northside General Medical Practitioners



CLIENT : Mr. Joseph Watterman
Age : 32
Sex : M
Marital Status : Widowed

I am referring Mr Joseph Watterman to you for treatment of obsessive compulsive disorder. I have already discussed this with him, and he is willing to undertake appropriate treatment. I am hoping you will be able to provide Joseph with educational information regarding OCD, and then conduct a cognitive behavioural exposure and response prevention programme with him.

Joseph is originally from Ireland. Presently he has distressing thoughts concerning the safety of his two young children. Joseph reports that he frequently has thoughts that his children will come to some harm. He has developed certain ways of behaving in order to alleviate anxiety associated with these worries. Joseph sought help after a negative response from his friends regarding these thoughts about his children. Joseph's work is becoming increasingly affected, and his wife is losing patience with him. A brief interview with Joseph revealed that during his childhood his mother was always concerned for the safety of him and his sisters. As a child, Joseph spent four years living in Belfast, and lost his father and eldest sister in bombings.

Thank you in anticipation, for accepting this referral.
Yours sincerely,

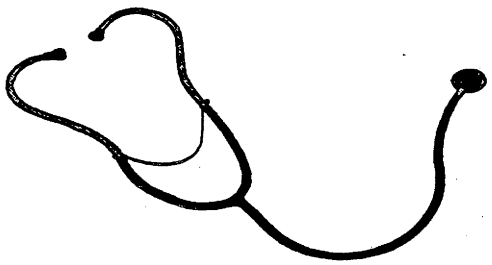
S.J.Williams M.B.B.S.

General Medical Practitioner

Appendix B3(iv)

Referral from

Northside General Medical Practitioners



CLIENT : Mr. James Luccio
Age : 73
Sex : M
Marital Status : Widowed

I am referring Mr James Luccio to you for treatment of dementia. I have already discussed this with his family and they are willing to cooperate where necessary. I am hoping you will be able to provide Mr Luccio's family with educational information regarding dementia. It is anticipated that intensive behavioural therapy with the client in his permanent environment, along with reality orientation therapy may facilitate a more comfortable lifestyle for him.

Following the recent death of his wife, Mr Luccio has recently moved from his son's family home into a nursing home. Mr Luccio presently has difficulties with orientation, planning activities, memory of faces and names, and is totally uninterested in his new surroundings. Mr Luccio's son, who has been the primary carer for his parents for a number of years, reported that both parents have been 'slowing down' over the last 18 months. Even before the violent death of his wife, Mr Luccio had become listless and 'retreated into a world of his own', speaking often of his own death. Mr Luccio has refused to acknowledge his wife's death, and since this time has displayed a further decline in his level of functioning.

Thank you in anticipation, for accepting this referral.
Yours sincerely,

S.J.Williams M.B.B.S.

General Medical Practitioner

Appendix B3(v)

Referral from
Northside Scientologists

CLIENT : Mr. Joseph Watterman
Age : 32
Sex : M
Marital Status : Widowed

I am referring Mr Joseph Watterman to you for treatment of obsessive compulsive disorder. I have already discussed this with him, and he is willing to undertake appropriate treatment. I am hoping you will be able to provide Joseph with educational information regarding OCD, and then conduct a cognitive behavioural exposure and response prevention programme with him.

Joseph is originally from Ireland. Presently he has distressing thoughts concerning the safety of his two young children. Joseph reports that he frequently has thoughts that his children will come to some harm. He has developed certain ways of behaving in order to alleviate anxiety associated with these worries. Joseph sought help after a negative response from his friends regarding these thoughts about his children. Joseph's work is becoming increasingly affected, and his wife is losing patience with him. A brief interview with Joseph revealed that during his childhood his mother was always concerned for the safety of him and his sisters. As a child, Joseph spent four years living in Belfast, and lost his father and eldest sister in bombings.

Thank you in anticipation, for accepting this referral.
Yours sincerely,

A.M. Phillips

Scientologist

Referral from
Northside Scientologists

CLIENT: Mr. James Luccio
Age : 73
Sex : M
Marital Status : Widowed

I am referring Mr James Luccio to you for treatment of dementia. I have already discussed this with his family and they are willing to cooperate where necessary. I am hoping you will be able to provide Mr Luccio's family with educational information regarding dementia. It is anticipated that intensive behavioural therapy with the client in his permanent environment, along with reality orientation therapy may facilitate a more comfortable lifestyle for him.

Following the recent death of his wife, Mr Luccio has recently moved from his son's family home into a nursing home. Mr Luccio presently has difficulties with orientation, planning activities, memory of faces and names, and is totally uninterested in his new surroundings. Mr Luccio's son, who has been the primary carer for his parents for a number of years, reported that both parents have been 'slowing down' over the last 18 months. Even before the violent death of his wife, Mr Luccio had become listless and 'retreated into a world of his own', speaking often of his own death. Mr Luccio has refused to acknowledge his wife's death, and since this time has displayed a further decline in his level of functioning.

Thank you in anticipation, for accepting this referral.
Yours sincerely,

A.M. Phillips

Scientologist

Referral from

Northside Family & Child Psychologists

CLIENT : Mr. Joseph Watterman
Age : 32
Sex : M
Marital Status : Widowed

I am referring Mr Joseph Watterman to you for treatment of second generation post traumatic stress disorder. I have already discussed this with him, and he is willing to undertake appropriate treatment. I am hoping you will be able to provide Joseph with educational information regarding PTSD, and then teach him some relaxation techniques. After a social support system for him has been established, it is suggested that survivor therapy (either flooding or EMDR) would be appropriate.

Joseph is originally from Ireland. Presently he has distressing thoughts concerning the safety of his two young children. Joseph reports that he frequently has thoughts that his children will come to some harm. He has developed certain ways of behaving in order to alleviate anxiety associated with these worries. Joseph sought help after a negative response from his friends regarding these thoughts about his children. Joseph's work is becoming increasingly affected, and his wife is losing patience with him. A brief interview with Joseph revealed that during his childhood his mother was always concerned for the safety of him and his sisters. As a child, Joseph spent four years living in Belfast, and lost his father and eldest sister in bombings.

Thank you in anticipation, for accepting this referral.
Yours sincerely,

A.M. Phillips (B.Sc.M.Clin.Psych.)

Clinical Psychologist

Referral from

Northside Family & Child Psychologists

CLIENT : Mr. James Luccio
Age : 73
Sex : M
Marital Status : Widowed

I am referring Mr James Luccio to you for treatment of depression. I have already discussed this with his family and they are willing to cooperate where necessary. I have arranged the administration of antidepressant medication. I am hoping that you will provide Mr Luccio's family with educational information regarding his depression, and engage him in appropriate cognitive behaviour therapy.

Following the recent death of his wife, Mr Luccio has recently moved from his son's family home into a nursing home. Mr Luccio presently has difficulties with orientation, planning activities, memory of faces and names, and is totally uninterested in his new surroundings. Mr Luccio's son, who has been the primary carer for his parents for a number of years, reported that both parents have been 'slowing down' over the last 18 months. Even before the violent death of his wife, Mr Luccio had become listless and 'retreated into a world of his own', speaking often of his own death. Mr Luccio has refused to acknowledge his wife's death, and since this time has displayed a further decline in his level of functioning.

Thank you in anticipation, for accepting this referral.
Yours sincerely,

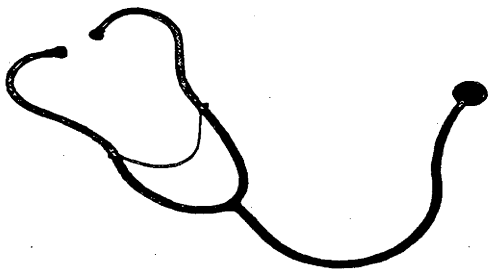
A.M. Phillips (B.Sc.M.Clin.Psych.)

Clinical Psychologist

Appendix B3(ix)

Referral from

Northside General Medical Practitioners



CLIENT: Mr. Joseph Watterman
Age : 32
Sex : M
Marital Status : Widowed

I am referring Mr Joseph Watterman to you for treatment of second generation post traumatic stress disorder. I have already discussed this with him, and he is willing to undertake appropriate treatment. I am hoping you will be able to provide Joseph with educational information regarding PTSD, and then teach him some relaxation techniques. After a social support system for him has been established, it is suggested that survivor therapy (either flooding or EMDR) would be appropriate.

Joseph is originally from Ireland. Presently he has distressing thoughts concerning the safety of his two young children. Joseph reports that he frequently has thoughts that his children will come to some harm. He has developed certain ways of behaving in order to alleviate anxiety associated with these worries. Joseph sought help after a negative response from his friends regarding these thoughts about his children. Joseph's work is becoming increasingly affected, and his wife is losing patience with him. A brief interview with Joseph revealed that during his childhood his mother was always concerned for the safety of him and his sisters. As a child, Joseph spent four years living in Belfast, and lost his father and eldest sister in bombings.

Thank you in anticipation, for accepting this referral.
Yours sincerely,

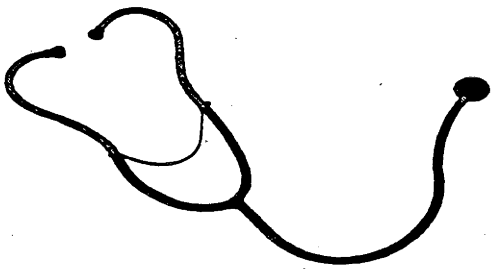
S.J.Williams M.B.B.S.

General Medical Practitioner

Appendix B3(x)

Referral from

Northside General Medical Practitioners



CLIENT: Mr. James Luccio
Age : 73
Sex : M
Marital Status : Widowed

I am referring Mr James Luccio to you for treatment of depression. I have already discussed this with his family and they are willing to cooperate where necessary. I have arranged the administration of antidepressant medication. I am hoping that you will provide Mr Luccio's family with educational information regarding his depression, and engage him in appropriate cognitive behaviour therapy.

Following the recent death of his wife, Mr Luccio has recently moved from his son's family home into a nursing home. Mr Luccio presently has difficulties with orientation, planning activities, memory of faces and names, and is totally uninterested in his new surroundings. Mr Luccio's son, who has been the primary carer for his parents for a number of years, reported that both parents have been 'slowing down' over the last 18 months. Even before the violent death of his wife, Mr Luccio had become listless and 'retreated into a world of his own', speaking often of his own death. Mr Luccio has refused to acknowledge his wife's death, and since this time has displayed a further decline in his level of functioning.

Thank you in anticipation, for accepting this referral.
Yours sincerely,

S.J.Williams M.B.B.S.

General Medical Practitioner

Referral from
Northside Scientologists

CLIENT: Mr. Joseph Watterman
Age : 32
Sex : M
Marital Status : Widowed

I am referring Mr Joseph Watterman to you for treatment of second generation post traumatic stress disorder. I have already discussed this with him, and he is willing to undertake appropriate treatment. I am hoping you will be able to provide Joseph with educational information regarding PTSD, and then teach him some relaxation techniques. After a social support system for him has been established, it is suggested that survivor therapy (either flooding or EMDR) would be appropriate.

Joseph is originally from Ireland. Presently he has distressing thoughts concerning the safety of his two young children. Joseph reports that he frequently has thoughts that his children will come to some harm. He has developed certain ways of behaving in order to alleviate anxiety associated with these worries. Joseph sought help after a negative response from his friends regarding these thoughts about his children. Joseph's work is becoming increasingly affected, and his wife is losing patience with him. A brief interview with Joseph revealed that during his childhood his mother was always concerned for the safety of him and his sisters. As a child, Joseph spent four years living in Belfast, and lost his father and eldest sister in bombings.

Thank you in anticipation, for accepting this referral.
Yours sincerely,

A.M. Phillips

Scientologist

Referral from
Northside Scientologists

CLIENT: Mr. James Luccio
Age : 73
Sex : M
Marital Status : Widowed

I am referring Mr James Luccio to you for treatment of depression. I have already discussed this with his family and they are willing to cooperat where necessary. I have arranged the administration of antidepressant medication. I am hoping that you will provide Mr Luccio's family with educational information regarding his depression, and engage him in appropriate cognitive behaviour therapy.

Following the recent death of his wife, Mr Luccio has recently moved from his son's family home into a nursing home. Mr Luccio presently has difficulties with orientation, planning activities, memory of faces and names, and is totally uninterested in his new surroundings. Mr Luccio's son, who has been the primary carer for his parents for a number of years, reported that both parents have been 'slowing down' over the last 18 months. Even before the violent death of his wife, Mr Luccio had become listless and 'retreated into a world of his own', speaking often of his own death. Mr Luccio has refused to acknowledge his wife's death, and since this time has displayed a further decline in his level of functioning.

Thank you in anticipation, for accepting this referral.
Yours sincerely,

A.M. Phillips

Scientologist

APPENDIX B4

Main Study - Questionnaire

Please answer the following by making a mark on the scale at the point you feel best represents your position on each question. There is room provided to make further comments if you wish, but *please make sure that you first mark the scale.*

1. How closely do you identify professionally with Northside Family and Child Psychologists?
   [How closely do you identify professionally with Northside Scientologists for participants in extended comparative context conditions]

Not at all |——————————————————————| Very closely

Comments : _____

_____

2. How closely do you identify professionally with Northside General Medical Practitioners?

Not at all |——————————————————————| Very closely

Comments : _____

_____

3. Do you agree with the diagnosis given in the referral from Northside General Medical Practitioners?

No, not at all |——————————————————————| Yes, completely

Comments : _____

_____

4. What is your feeling about the treatment recommended in the referral from Northside General Medical Practitioners?

Absolutely inappropriate ——— Totally appropriate

Comments : _____

_____

5. How useful do you feel the information in the referral from Northside General Medical Practitioners is?

Not at all useful ——— Exceptionally useful

Comments : _____

_____

6. How accurate do you consider the referral from Northside General Medical Practitioners to be?

Totally inaccurate ——— Totally accurate

Comments : _____

_____

7. How much weight would you give the information in this initial referral from Northside General Medical Practitioners, in the context of an entire client assessment?

No weight placed on initial referral at all ——— Entire assessment based on initial referral

Comments : _____

_____

8. What proportion of information in this referral letter from Northside General Medical Practitioners would you accept without question?

Accept none of the information ——— Accept all of the information

Comments : _____

_____

9. How happy would you be to work with Northside General Medical Practitioners in joint management and treatment of the client referred by them?

I would refuse to work with Northside General Medical Practitioners ——— I would have no difficulties working with Northside General Medical Practitioners

Comments : _____

_____

10. Is the referral from Northside General Medical Practitioners of a professional standard similar to your own?

No, not at all ——— Yes, very similar

Comments : _____

_____

11. Would you consider Northside General Medical Practitioners to be as trustworthy as yourself with regard to clinical diagnosis and treatment?

No, definitely not ——— Yes, definitely

Comments : _____

_____

12. Would you accept the referral from Northside General Medical Practitioners?

No, definitely not ⟵——————————⟶ Yes, definitely

Comments : _____

_____

As mentioned earlier, your responses to the above questions, and the following demographic details will remain completely confidential and completely anonymous.

12. Sex : _____

13. Age : _____

14. Years of professional practice : _____

15. What, if any, is your speciality area of clinical work?

_____

16. What, if any, is your theoretical orientation?

_____

Again, thank you for your invaluable assistance and co-operation.
Sincerely,

Kate Barrelle

APPENDIX C

Response frequencies and distribution

Of the 217 responses to the invitation to participate in the study, nine detected and mentioned a small typing error present in the material of all participants. The error was that a man's wife was mentioned in the present (not past) tense, after he had been referred to as a widower. The error was absolutely systematic - all subjects received the error, and the error appeared equally across all conditions. The distribution of the 217 respondents across the experimental conditions, and accounting for detection of error, is in Table C1.

Table C1
Distribution of Responses

Cond	#Responses	'Error' Responses	Total Responses
1	23	1	24
2	32	0	32
3	23	2	25
4	36	2	38
5	23	0	23
6	19	3	22
7	24	0	24
8	28	1	29
Total	208	9	217

It is recommended that there be at least 20 data points per experimental cell (Tabachnick & Fidell, 1989). Taking only respondents who did not mention the error, all conditions but one met the minimum size requirement (see Table C1). In order to ascertain whether it was appropriate to combine respondents who mentioned the error with those who did not, analysis to detect differences between the two groups of respondents was undertaken.

A 2 (error detection : yes/no) x 8 (condition : 1-8) MANOVA with 12 dependent variables was conducted to determine whether there were any such differences. The dependent variables were the 10 questions (from the questionnaire) regarding acceptance of the GP referral information, as well as the two manipulation check questions (items one and two of the questionnaire).

There was a main effect for condition ($F(84, 1134) = 1.82$, $p = 0.000$), indicating that across both levels of error detection there were significant differences between the eight conditions. This was expected. There was neither a main effect for error detection ($F(12, 156) = 0.39$, $p = 0.964$) nor a significant interaction between error detection and condition ($F(48, 636) = 0.49$, $p = 0.998$). This means that across all conditions, and within each of the conditions, there were no significant differences between the responses of those respondents who mentioned the error and those who did not.

Given therefore, that there was no significant difference between the two groups of respondents, their responses were combined. This resulted in the total distribution of responses as shown in Table C1. All conditions now met the minimum requirement of at least 20 data points.

APPENDIX D

Table of Means and Standard Deviations

Table D1
Experimental Conditions

Cond.	Comparative Context	Consistency of Judged Referral	Consistency of Comparison Referral
1	Extended	Consistent	Consistent
2	Extended	Consistent	Inconsistent
3	Extended	Inconsistent	Consistent
4	Extended	Inconsistent	Inconsistent
5	Restricted	Consistent	Consistent
6	Restricted	Consistent	Inconsistent
7	Restricted	Inconsistent	Consistent
8	Restricted	Inconsistent	Inconsistent

Table D2
Table of Means (sd) by Experimental Condition

Condition	Item 1	Item 2	Item 3
1	13.63 (19.88)	51.50 (25.85)	48.50 (18.23)
2	10.00 (19.93)	55.25 (29.51)	43.09 (22.19)
3	7.96 (16.24)	50.82 (20.88)	31.52 (22.48)
4	3.68 (5.91)	54.39 (28.92)	30.63 (22.43)
5	58.29 (28.38)	40.78 (25.90)	38.00 (21.76)
6	39.86 (29.58)	28.18 (20.43)	42.55 (21.91)
7	33.79 (25.26)	33.79 (27.74)	33.86 (21.10)
8	42.07 (28.25)	33.18 (25.66)	28.55 (21.17)

Table of Means (sd) by Experimental Condition - continued

Condition	Item 4	Item 5	Item 6
1	41.16 (26.65)	49.33 (23.54)	49.34 (17.49)
2	44.18 (22.63)	59.71 (22.26)	44.06 (20.69)
3	32.54 (22.89)	46.13 (21.71)	37.00 (32.95)
4	31.69 (23.46)	56.97 (25.43)	47.86 (21.60)
5	37.73 (23.62)	55.56 (27.07)	45.90 (29.53)
6	33.86 (20.02)	46.31 (25.46)	44.30 (17.78)
7	29.91 (23.57)	50.87 (24.15)	43.33 (22.90)
8	25.22 (17.05)	52.67 (25.56)	40.62 (21.61)

Condition	Item 7	Item 8	Item 9
1	28.71 (19.73)	24.87 (25.12)	65.61 (26.22)
2	36.50 (20.65)	24.37 (24.22)	73.84 (21.52)
3	32.95 (19.05)	27.41 (19.11)	63.50 (23.95)
4	32.97 (24.42)	30.73 (30.74)	70.86 (26.03)
5	31.54 (14.81)	25.77 (24.86)	63.56 (34.46)
6	26.71 (17.82)	29.85 (21.96)	67.20 (20.77)
7	35.58 (20.16)	38.66 (29.56)	63.00 (22.55)
8	30.31 (17.07)	26.41 (20.29)	66.03 (18.29)

Condition	Item 10	Item 11	Item 12
1	43.78 (30.18)	37.50 (28.41)	82.34 (16.03)
2	40.06 (32.74)	30.12 (24.37)	77.87 (22.47)
3	27.25 (21.37)	33.34 (26.87)	75.79 (28.43)
4	31.97 (28.31)	29.10 (24.25)	82.84 (22.78)
5	52.55 (32.89)	34.68 (32.45)	82.42 (24.97)
6	27.38 (20.77)	25.66 (17.85)	72.50 (28.64)
7	28.95 (23.92)	29.18 (23.13)	70.62 (27.42)
8	28.14 (24.78)	30.03 (19.76)	76.60 (21.49)

APPENDIX E

Factor Analysis

Table E1

Items (dvs) to be factored

Item	Dependent Variable	Nature of Question
Item 1		Identify with comparison referral source
Item 2		Identify with judged referral source
Item 3	(dv1)	Agreement with diagnosis
Item 4	(dv2)	Appropriateness of treatment
Item 5	(dv3)	Usefulness of information
Item 6	(dv4)	Accuracy of referral
Item 7	(dv5)	Weight given to referral info
Item 8	(dv6)	Proportion of info accepted without question
Item 9	(dv7)	Joint management and treatment
Item 10	(dv8)	Professional standard
Item 11	(dv9)	Trustworthiness
Item 12	(dv10)	Acceptance of referral

Design

Factor Analysis vs Principle Components Analysis

Some thought was given to whether a Factor Analysis (FA) or a Principal Components Analysis (PCA) was more appropriate. According to Tabachnick and Fidell (1989, p625) "PCA is the solution of choice for the researcher who is primarily interested in reducing a large number of variables to a smaller number of components". This reduction was to be data (empirically) driven and so PCA was chosen.

Ten vs twelve variables

PCA with varimax rotation was conducted a number of times. One set of analyses involved 10 variables, the other 12. The two variable difference pertained to the inclusion of items one and two of the questionnaire - the manipulation/identity items.

Number of factors

The PCAs were designed to extract two, three and four factors for both the 10 and 12 variable solutions. For the 10 variable solution, there was no four factor solution. Details of the solutions are in Table E2 below.

Table E2

Details of various solutions

Variables	12	12	12	10	10
Factors	2	3	4	2	3
vpf	7,4	2,9,1	6,3,1,2	3,7	6,2,2
pve(%)	45.7	54.6	63.4	51.9	62.2

vpf - variables per factor
pve - proportion of total variance explained (%)

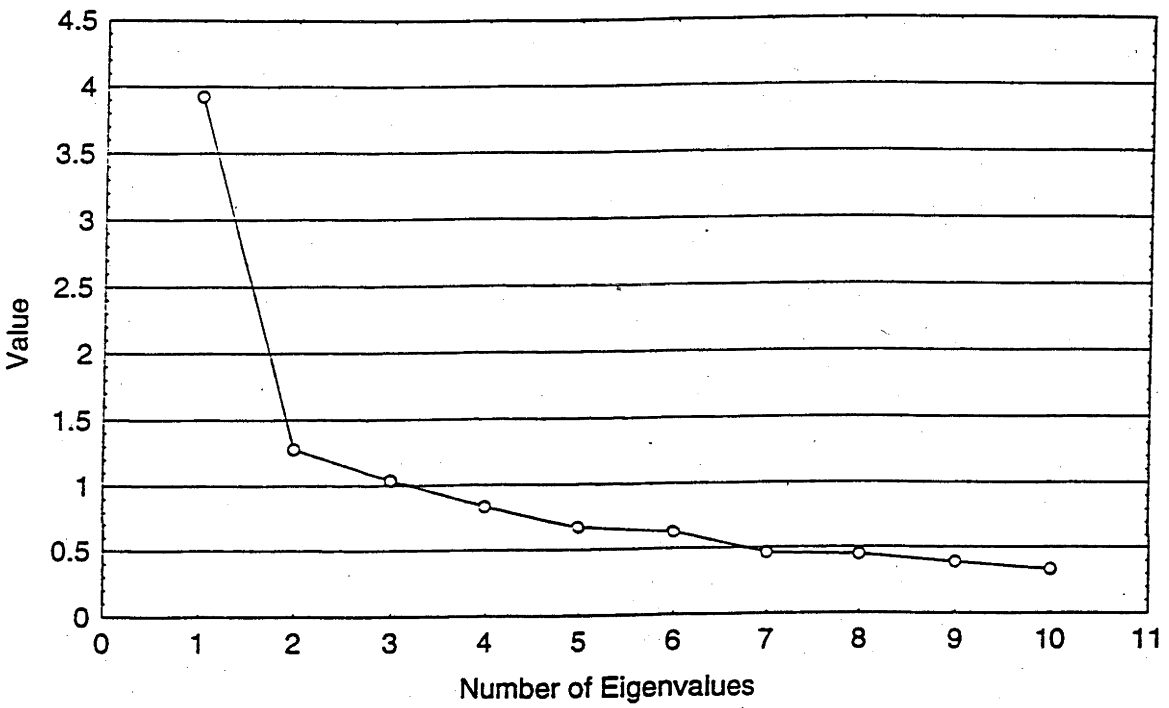
For the 12 variable PCAs, one factor consistently comprised only item one (except for the two factor solution in which the same item is excluded from the solution all together).

Although it can be seen that the PCAs with a greater number of factors extracted have a greater proportion of total variance explained, this is somewhat misleading. The more factors there are, the closer the factored solution will approximate the original data set, and therefore the more total variance that will be explained. The scree plot (plot E1) illustrates this nicely.

Since the 10 variable PCA is intuitively what we are interested in, and nothing substantial was added by including the two manipulation/identity items (in fact an unstable factor with only one item result), the 10 variable solutions were considered optimal over the 12

variable solutions. Further, since, within the 10 variable PCAs the two factor solution has more stability that the three factor solution (a single two variable factor with clean loadings vs two two variable factors with more diverse loadings), the two factor, ten variable PCA solution was considered optimal. Observation of the scree plot also suggested that a two factors/component solution was optimal.

Plot E1
Scree Plot



Results

Principal factors extraction with varimax rotation was performed on 10 items (items 3-12) from the questionnaire (these were the 10 original dependent variables). Both factors were internally consistent and reasonably well defined (SMC = 0.63). However, the variables were not well defined by this factor solution (communality values were low (<.45)).

From Table E2 it can be seen that the two factors have been constructed in the following way. Factor 1 : Appropriateness of treatment, Joint management and treatment, and Acceptance of referral; and Factor 2 : Agreement with diagnosis, Usefulness of information, Accuracy of referral, Weight given to referral information, Proportion info accepted without question, Professional standard, and Trustworthiness.

Table E2
Factor loadings

dv	*Item*	*Factor 1*	*Factor 2*
1	Agreement with diagnosis	0.404	0.558**
2	Appropriateness of treatment	0.573**	0.496
3	Usefulness of information	0.233	0.623**
4	Accuracy of referral	0.450	0.572**
5	Weight given to referral info	-0.409	0.804**
6	Proportion info accptd w/o question	-0.249	0.672**
7	Joint management and treatment	0.494**	0.273
8	Professional standard	0.459	0.595**
9	Trustworthiness	0.398	0.545**
10	Acceptance of referral	0.803**	-0.154

APPENDIX F

Multiple Regression

Ten standard multiple regressions were performed between each of the 10 questionnaire items, and comparative context, consistency of moderate referral, consistency of comparison referral, identification with moderate referral source, and identification with comparison referral source.

For each, the following details are tabulated :

- Regression summary
- Analysis of variance
- Correlations of regression weights
- Covariances of regression weights
- Variables currently in the equation
- Redundancy of independent variables

Agreement with diagnosis (dv1, item 3)

MULTIPLE REGRESS.	Regression Summary for Dependent Variable: Q3 R= .40924232 R²= .16747928 Adjusted R²= .14775130 F(5,211)=8.4894 p<.00000 Std.Error of estimate: 19.961					
N=217	BETA	St. Err. of BETA	B	St. Err. of B	t(211)	p-level
Intercpt			.29240	8.535531	.034257	.972705
SOURCE	.097236	.087376	4.21497	3.787578	1.112840	.267043
CON_GMP	.269669	.063866	11.66262	2.762076	4.222412	.000036
CON_SRCE	.049170	.063381	2.13563	2.752866	.775783	.438746
Q1	-.073202	.083299	-.05536	.062994	-.878785	.380517
Q2	.328363	.068663	.25769	.053886	4.782225	.000003

MULTIPLE REGRESS.	Analysis of Variance				
Effect	Sums of Squares	df	Mean Squares	F	p-level
Regress.	16912.6	5	3382.520	8.489429	.000000
Residual	84070.6	211	398.439		
Total	100983.2				

MULTIPLE REGRESS.	Correlations of Regression Weights B				
variable	SOURCE	CON_GMP	CON_SRCE	Q1	Q2
SOURCE	1.000000	.117465	.015706	-.640648	.400750
CON_GMP	.117465	1.000000	-.024418	-.174353	.022472
CON_SRCE	.015706	-.024418	1.000000	-.105878	.012382
Q1	-.640648	-.174353	-.105878	1.000000	-.222123
Q2	.400750	.022472	.012382	-.222123	1.000000

MULTIPLE REGRESS.	Covariances of Regression Weights B				
variable	SOURCE	CON_GMP	CON_SRCE	Q1	Q2
SOURCE	14.34575	1.228866	.163767	-.152856	.081792
CON_GMP	1.22887	7.629066	-.185665	-.030337	.003345
CON_SRCE	.16377	-.185665	7.578274	-.018361	.001837
Q1	-.15286	-.030337	-.018361	.003968	-.000754
Q2	.08179	.003345	.001837	-.000754	.002904

MULTIPLE REGRESS.	Variables currently in the Equation						
Variable	Beta in	Partial Cor.	Semipart Cor.	Tolernce	R-square	t(212)	p-level
SOURCE	.097236	.076387	.069902	.516803	.483197	1.112840	.267037
CON_GMP	.269669	.279129	.265226	.967322	.032678	4.222412	.000036
CON_SRCE	.049170	.053331	.048730	.982188	.017812	.775783	.438742
Q1	-.073202	-.060388	-.055200	.568636	.431364	-.878785	.380513
Q2	.328363	.312711	.300391	.836883	.163117	4.782225	.000003

MULTIPLE REGRESS.	Redundancy of Independent Variables R-square column contains R-square of respective variable with all other independent variables			
variable	Toleran.	R-square	Partial Cor.	Semipart Cor.
SOURCE	.516803	.483197	.076387	.069902
CON_GMP	.967322	.032678	.279129	.265226
CON_SRCE	.982188	.017812	.053331	.048730
Q1	.568636	.431364	-.060388	-.055200
Q2	.836883	.163117	.312711	.300391

Appropriateness of treatment (dv2, item 4)

MULTIPLE REGRESS.	Regression Summary for Dependent Variable: Q4 R= .40613528 R²= .16494587 Adjusted R²= .14515786 F(5,211)=8.3356 p<.00000 Std.Error of estimate: 20.966					
N=217	BETA	St. Err. of BETA	B	St. Err. of B	t(211)	p-level
Intercpt			8.302049	8.965336	.926016	.355495
SOURCE	-.020713	.087509	-.941631	3.978301	-.236692	.813126
CON_GMP	.200987	.063963	9.116084	2.901160	3.142220	.001918
CON_SRCE	.023177	.063477	1.055757	2.891487	.365126	.715383
Q1	.018076	.083426	.014336	.066166	.216668	.828676
Q2	.339626	.068768	.279529	.056599	4.938751	.000002

MULTIPLE REGRESS.	Analysis of Variance				
Effect	Sums of Squares	df	Mean Squares	F	p-level
Regress.	18320.7	5	3664.150	8.335646	.000000
Residual	92750.5	211	439.576		
Total	111071.3				

MULTIPLE REGRESS.	Correlations of Regression Weights B				
variable	SOURCE	CON_GMP	CON_SRCE	Q1	Q2
SOURCE	1.000000	.117465	.015706	-.640648	.400750
CON_GMP	.117465	1.000000	-.024418	-.174353	.022472
CON_SRCE	.015706	-.024418	1.000000	-.105878	.012382
Q1	-.640648	-.174353	-.105878	1.000000	-.222123
Q2	.400750	.022472	.012382	-.222123	1.000000

MULTIPLE REGRESS.	Covariances of Regression Weights B				
variable	SOURCE	CON_GMP	CON_SRCE	Q1	Q2
SOURCE	15.82688	1.355741	.180675	-.168638	.090236
CON_GMP	1.35574	8.416732	-.204834	-.033469	.003690
CON_SRCE	.18067	-.204834	8.360695	-.020257	.002026
Q1	-.16864	-.033469	-.020257	.004378	-.000832
Q2	.09024	.003690	.002026	-.000832	.003203

MULTIPLE REGRESS.	Variables currently in the Equation						
Variable	Beta in	Partial Cor.	Semipart Cor.	Tolernce	R-square	t(212)	p-level
SOURCE	-.020713	-.016292	-.014890	.516803	.483197	-.236692	.813126
CON_GMP	.200987	.211429	.197675	.967322	.032678	3.142220	.001918
CON_SRCE	.023177	.025128	.022970	.982188	.017812	.365126	.715383
Q1	.018076	.014914	.013630	.568636	.431364	.216668	.828676
Q2	.339626	.321901	.310694	.836883	.163117	4.938751	.000002

MULTIPLE REGRESS.	Redundancy of Independent Variables R-square column contains R-square of respective variable with all other independent variables			
variable	Toleran.	R-square	Partial Cor.	Semipart Cor.
SOURCE	.516803	.483197	-.016292	-.014890
CON_GMP	.967322	.032678	.211429	.197675
CON_SRCE	.982188	.017812	.025128	.022970
Q1	.568636	.431364	.014914	.013630
Q2	.836883	.163117	.321901	.310694

Usefulness of information (dv3, item 5)

MULTIPLE REGRESS.	Regression Summary for Dependent Variable: Q5 R= .32447112 R²= .10528151 Adjusted R²= .08407965 F(5,211)=4.9657 p<.00025 Std.Error of estimate: 23.231					
N=217	BETA	St. Err. of BETA	B	St. Err. of B	t(211)	p-level
Intercpt			40.38106	9.933672	4.06507	.000068
SOURCE	.062146	.090581	3.02424	4.407993	.68608	.493415
CON_GMP	.017221	.066209	.83609	3.214511	.26010	.795042
CON_SRCE	-.088084	.065706	-4.29493	3.203793	-1.34058	.181500
Q1	.009814	.086354	.00833	.073313	.11365	.909624
Q2	.327148	.071182	.28822	.062712	4.59594	.000007

MULTIPLE REGRESS.	Analysis of Variance				
Effect	Sums of Squares	df	Mean Squares	F	p-level
Regress.	13398.9	5	2679.776	4.965673	.000255
Residual	113868.3	211	539.660		
Total	127267.2				

MULTIPLE REGRESS.	Correlations of Regression Weights B				
variable	SOURCE	CON_GMP	CON_SRCE	Q1	Q2
SOURCE	1.000000	.117465	.015706	-.640648	.400750
CON_GMP	.117465	1.000000	-.024418	-.174353	.022472
CON_SRCE	.015706	-.024418	1.000000	-.105878	.012382
Q1	-.640648	-.174353	-.105878	1.000000	-.222123
Q2	.400750	.022472	.012382	-.222123	1.000000

MULTIPLE REGRESS.	Covariances of Regression Weights B				
variable	SOURCE	CON_GMP	CON_SRCE	Q1	Q2
SOURCE	19.43040	1.66442	.22181	-.207034	.110781
CON_GMP	1.66442	10.33308	-.25147	-.041089	.004530
CON_SRCE	.22181	-.25147	10.26429	-.024869	.002488
Q1	-.20703	-.04109	-.02487	.005375	-.001021
Q2	.11078	.00453	.00249	-.001021	.003933

MULTIPLE REGRESS.	Variables currently in the Equation						
Variable	Beta in	Partial Cor.	Semipart Cor.	Tolernce	R-square	t(212)	p-level
SOURCE	.062146	.047179	.044676	.516803	.483197	.68608	.493411
CON_GMP	.017221	.017903	.016937	.967322	.032678	.26010	.795041
CON_SRCE	-.088084	-.091898	-.087296	.982188	.017812	-1.34058	.181493
Q1	.009814	.007824	.007401	.568636	.431364	.11365	.909623
Q2	.327148	.301659	.299279	.836883	.163117	4.59594	.000007

MULTIPLE REGRESS.	Redundancy of Independent Variables R-square column contains R-square of respective variable with all other independent variables			
variable	Toleran.	R-square	Partial Cor.	Semipart Cor.
SOURCE	.516803	.483197	.047179	.044676
CON_GMP	.967322	.032678	.017903	.016937
CON_SRCE	.982188	.017812	-.091898	-.087296
Q1	.568636	.431364	.007824	.007401
Q2	.836883	.163117	.301659	.299279

Accuracy of referral (dv4, item 6)

MULTIPLE REGRESS.	Regression Summary for Dependent Variable: Q6 R= .25417830 R²= .06460661 Adjusted R²= .04244089 F(5,211)=2.9147 p<.01444 Std.Error of estimate: 20.028					
N=217	BETA	St. Err. of BETA	B	St. Err. of B	t(211)	p-level
Intercept			25.52743	8.564197	2.98072	.003213
SOURCE	.138368	.092618	5.67752	3.800299	1.49397	.136678
CON_GMP	.075934	.067697	3.10855	2.771353	1.12167	.263277
CON_SRCE	-.002433	.067183	-.10001	2.762112	-.03621	.971151
Q1	-.138389	.088296	-.09907	.063206	-1.56734	.118534
Q2	.260113	.072782	.19323	.054067	3.57386	.000436

MULTIPLE REGRESS.	Analysis of Variance				
Effect	Sums of Squares	df	Mean Squares	F	p-level
Regress.	5845.74	5	1169.147	2.914708	.014437
Residual	84636.27	211	401.120		
Total	90482.01				

MULTIPLE REGRESS.	Correlations of Regression Weights B				
variable	SOURCE	CON_GMP	CON_SRCE	Q1	Q2
SOURCE	1.000000	.117465	.015706	-.640648	.400750
CON_GMP	.117465	1.000000	-.024418	-.174353	.022472
CON_SRCE	.015706	-.024418	1.000000	-.105878	.012382
Q1	-.640648	-.174353	-.105878	1.000000	-.222123
Q2	.400750	.022472	.012382	-.222123	1.000000

MULTIPLE REGRESS.	Covariances of Regression Weights B				
variable	SOURCE	CON_GMP	CON_SRCE	Q1	Q2
SOURCE	14.44227	1.237134	.164868	-.153884	.082342
CON_GMP	1.23713	7.680395	-.186914	-.030541	.003367
CON_SRCE	.16487	-.186914	7.629261	-.018484	.001849
Q1	-.15388	-.030541	-.018484	.003995	-.000759
Q2	.08234	.003367	.001849	-.000759	.002923

MULTIPLE REGRESS.	Variables currently in the Equation						
Variable	Beta in	Partial Cor.	Semipart Cor.	Tolernce	R-square	t(212).	p-level
SOURCE	.138368	.102309	.099471	.516803	.483197	1.49397	.136671
CON_GMP	.075934	.076990	.074683	.967322	.032678	1.12167	.263271
CON_SRCE	-.002433	-.002493	-.002411	.982188	.017812	-.03621	.971151
Q1	-.138389	-.107278	-.104356	.568636	.431364	-1.56734	.118526
Q2	.260113	.238910	.237954	.836883	.163117	3.57386	.000435

MULTIPLE REGRESS.	Redundancy of Independent Variables R-square column contains R-square of respective variable with all other independent variables			
variable	Toleran.	R-square	Partial Cor.	Semipart Cor.
SOURCE	.516803	.483197	.102309	.099471
CON_GMP	.967322	.032678	.076990	.074683
CON_SRCE	.982188	.017812	-.002493	-.002411
Q1	.568636	.431364	-.107278	-.104356
Q2	.836883	.163117	.238910	.237954

Weight given to referral information (dv5, item 7)

MULTIPLE REGRESS.	Regression Summary for Dependent Variable: Q7 R= .20712328 R^2= .04290005 Adjusted R^2= .02021996 F(5,211)=1.8915 p<.09706 Std.Error of estimate: 19.363					
N=217	BETA	St. Err. of BETA	B	St. Err. of B	t(211)	p-level
Intercpt			24.96691	8.279908	3.015361	.002882
SOURCE	.045996	.093686	1.80387	3.674147	.490963	.623963
CON_GMP	-.034912	.068478	-1.36602	2.679357	-.509833	.610701
CON_SRCE	.006097	.067958	.23957	2.670423	.089712	.928601
Q1	-.033884	.089314	-.02218	.061108	-.379375	.704791
Q2	.215565	.073622	.15305	.052272	2.928017	.003786

MULTIPLE REGRESS.	Analysis of Variance				
Effect	Sums of Squares	df	Mean Squares	F	p-level
Regress.	3545.97	5	709.1935	1.891529	.097063
Residual	79110.52	211	374.9314		
Total	82656.48				

MULTIPLE REGRESS.	Correlations of Regression Weights B				
variable	SOURCE	CON_GMP	CON_SRCE	Q1	Q2
SOURCE	1.000000	.117465	.015706	-.640648	.400750
CON_GMP	.117465	1.000000	-.024418	-.174353	.022472
CON_SRCE	.015706	-.024418	1.000000	-.105878	.012382
Q1	-.640648	-.174353	-.105878	1.000000	-.222123
Q2	.400750	.022472	.012382	-.222123	1.000000

MULTIPLE REGRESS.	Covariances of Regression Weights B				
variable	SOURCE	CON_GMP	CON_SRCE	Q1	Q2
SOURCE	13.49936	1.156364	.154104	-.143837	.076966
CON_GMP	1.15636	7.178956	-.174711	-.028547	.003147
CON_SRCE	.15410	-.174711	7.131161	-.017278	.001728
Q1	-.14384	-.028547	-.017278	.003734	-.000710
Q2	.07697	.003147	.001728	-.000710	.002732

MULTIPLE REGRESS.	Variables currently in the Equation						
Variable	Beta in	Partial Cor.	Semipart Cor.	Tolernce	R-square	t(212)	p-level
SOURCE	.045996	.033780	.033066	.516803	.483197	.490963	.623960
CON_GMP	-.034912	-.035077	-.034337	.967322	.032678	-.509833	.610699
CON_SRCE	.006097	.006176	.006042	.982188	.017812	.089712	.928600
Q1	-.033884	-.026108	-.025551	.568636	.431364	-.379375	.704789
Q2	.215565	.197599	.197202	.836883	.163117	2.928017	.003784

MULTIPLE REGRESS.	Redundancy of Independent Variables R-square column contains R-square of respective variable with all other independent variables			
variable	Toleran.	R-square	Partial Cor.	Semipart Cor.
SOURCE	.516803	.483197	.033780	.033066
CON_GMP	.967322	.032678	-.035077	-.034337
CON_SRCE	.982188	.017812	.006176	.006042
Q1	.568636	.431364	-.026108	-.025551
Q2	.836883	.163117	.197599	.197202

Proportion of information accepted w/o question (dv6, item 8)

MULTIPLE REGRESS.	Regression Summary for Dependent Variable: Q8 R= .15995572 R²= .02558583 Adjusted R²= .00249545 F(5,211)=1.1081 p<.35712 Std.Error of estimate: 24.912					
N=217	BETA	St. Err. of BETA	B	St. Err. of B	t(211)	p-level
Intercpt			20.51208	10.65282	1.925507	.055510
SOURCE	.094254	.094530	4.71335	4.72711	.997088	.319864
CON_GMP	-.022752	.069095	-1.13511	3.44723	-.329281	.742270
CON_SRCE	-.021694	.068570	-1.08699	3.43573	-.316379	.752028
Q1	-.048625	.090118	-.04242	.07862	-.539567	.590065
Q2	.170141	.074285	.15403	.06725	2.290398	.022986

MULTIPLE REGRESS.	Analysis of Variance				
Effect	Sums of Squares	df	Mean Squares	F	p-level
Regress.	3438.5	5	687.6992	1.108073	.357117
Residual	130952.1	211	620.6262		
Total	134390.6				

MULTIPLE REGRESS.	Correlations of Regression Weights B				
variable	SOURCE	CON_GMP	CON_SRCE	Q1	Q2
SOURCE	1.000000	.117465	.015706	-.640648	.400750
CON_GMP	.117465	1.000000	-.024418	-.174353	.022472
CON_SRCE	.015706	-.024418	1.000000	-.105878	.012382
Q1	-.640648	-.174353	-.105878	1.000000	-.222123
Q2	.400750	.022473	.012382	-.222123	1.000000

MULTIPLE REGRESS.	Covariances of Regression Weights B				
variable	SOURCE	CON_GMP	CON_SRCE	Q1	Q2
SOURCE	22.34557	1.91414	.25509	-.238095	.127402
CON_GMP	1.91414	11.88337	-.28920	-.047254	.005210
CON_SRCE	.25509	-.28920	11.80425	-.028600	.002861
Q1	-.23810	-.04725	-.02860	.006181	-.001174
Q2	.12740	.00521	.00286	-.001174	.004523

MULTIPLE REGRESS.	Variables currently in the Equation						
Variable	Beta in	Partial Cor.	Semipart Cor.	Tolernce	R-square	t(212)	p-level
SOURCE	.094254	.068481	.067759	.516803	.483197	.997088	.319858
CON_GMP	-.022752	-.022663	-.022377	.967322	.032678	-.329281	.742268
CON_SRCE	-.021694	-.021775	-.021500	.982188	.017812	-.316379	.752026
Q1	-.048625	-.037120	-.036667	.568636	.431364	-.539567	.590062
Q2	.170141	.155753	.155647	.836883	.163117	2.290398	.022982

MULTIPLE REGRESS.	Redundancy of Independent Variables R-square column contains R-square of respective variable with all other independent variables			
variable	Toleran.	R-square	Partial Cor.	Semipart Cor.
SOURCE	.516803	.483197	.068481	.067759
CON_GMP	.967322	.032678	-.022663	-.022377
CON_SRCE	.982188	.017812	-.021775	-.021500
Q1	.568636	.431364	-.037120	-.036667
Q2	.836883	.163117	.155753	.155647

Joint management and treatment (dv7, item 9)

MULTIPLE REGRESS.	Regression Summary for Dependent Variable: Q9 R= .32067645 R²= .10283338 Adjusted R²= .08157351 F(5,211)=4.8370 p<.00033 Std.Error of estimate: 23.137					
N=217	BETA	St. Err. of BETA	B	St. Err. of B	t(211)	p-level
Intercpt			58.30281	9.893767	5.89288	.000000
SOURCE	.045270	.090705	2.19115	4.390285	.49909	.618235
CON_GMP	.036092	.066299	1.74286	3.201598	.54437	.586760
CON_SRCE	-.118237	.065796	-5.73421	3.190923	-1.79704	.073760
Q1	-.025034	.086473	-.02114	.073018	-.28951	.772477
Q2	.307291	.071279	.26927	.062460	4.31108	.000025

MULTIPLE REGRESS.	Analysis of Variance				
Effect	Sums of Squares	df	Mean Squares	F	p-level
Regress.	12947.0	5	2589.391	4.836971	.000329
Residual	112955.3	211	535.333		
Total	125902.2				

MULTIPLE REGRESS.	Correlations of Regression Weights B				
variable	SOURCE	CON_GMP	CON_SRCE	Q1	Q2
SOURCE	1.000000	.117465	.015706	-.640648	.400750
CON_GMP	.117465	1.000000	-.024418	-.174353	.022472
CON_SRCE	.015706	-.024418	1.000000	-.105878	.012382
Q1	-.640648	-.174353	-.105878	1.000000	-.222123
Q2	.400750	.022472	.012382	-.222123	1.000000

MULTIPLE REGRESS.	Covariances of Regression Weights B				
variable	SOURCE	CON_GMP	CON_SRCE	Q1	Q2
SOURCE	19.27461	1.65107	.22003	-.205374	.109893
CON_GMP	1.65107	10.25023	-.24946	-.040760	.004494
CON_SRCE	.22003	-.24946	10.18199	-.024669	.002468
Q1	-.20537	-.04076	-.02467	.005332	-.001013
Q2	.10989	.00449	.00247	-.001013	.003901

MULTIPLE REGRESS.	Variables currently in the Equation						
Variable	Beta in	Partial Cor.	Semipart Cor.	Tolernce	R-square	t(212)	p-level
SOURCE	.045270	.034339	.032544	.516803	.483197	.49909	.618233
CON_GMP	.036092	.037450	.035497	.967322	.032678	.54437	.586757
CON_SRCE	-.118237	-.122777	-.117180	.982188	.017812	-1.79704	.073753
Q1	-.025034	-.019927	-.018878	.568636	.431364	-.28951	.772476
Q2	.307291	.284521	.281114	.836883	.163117	4.31108	.000025

MULTIPLE REGRESS.	Redundancy of Independent Variables R-square column contains R-square of respective variable with all other independent variables			
variable	Toleran.	R-square	Partial Cor.	Semipart Cor.
SOURCE	.516803	.483197	.034339	.032544
CON_GMP	.967322	.032678	.037450	.035497
CON_SRCE	.982188	.017812	-.122777	-.117180
Q1	.568636	.431364	-.019927	-.018878
Q2	.836883	.163117	.284521	.281114

Professional standard (dv8, item 10)

MULTIPLE REGRESS.	Regression Summary for Dependent Variable: Q10 R= .45014754 R²= .20263281 Adjusted R²= .18373785 F(5,211)=10.724 p<.00000 Std.Error of estimate: 24.893					
N=217	BETA	St. Err. of BETA	B	St. Err. of B	t(211)	p-level
Intercpt			-15.7033	10.64449	-1.47525	.141635
SOURCE	.128810	.085512	7.1151	4.72341	1.50635	.133474
CON_GMP	.189807	.062503	10.4602	3.44453	3.03676	.002693
CON_SRCE	.080077	.062028	4.4319	3.43304	1.29097	.198128
Q1	-.030280	.081521	-.0292	.07856	-.37144	.710682
Q2	.426279	.067198	.4263	.06720	6.34364	.000000

MULTIPLE REGRESS.	Analysis of Variance				
Effect	Sums of Squares	df	Mean Squares	F	p-level
Regress.	33226.5	5	6645.295	10.72417	.000000
Residual	130747.4	211	619.656		
Total	163973.8				

MULTIPLE REGRESS.	Correlations of Regression Weights B				
variable	SOURCE	CON_GMP	CON_SRCE	Q1	Q2
SOURCE	1.000000	.117465	.015706	-.640648	.400750
CON_GMP	.117465	1.000000	-.024418	-.174353	.022472
CON_SRCE	.015706	-.024418	1.000000	-.105878	.013382
Q1	-.640648	-.174353	-.105878	1.000000	-.222123
Q2	.400750	.022472	.013382	-.222123	1.000000

MULTIPLE REGRESS.	Covariances of Regression Weights B				
variable	SOURCE	CON_GMP	CON_SRCE	Q1	Q2
SOURCE	22.31063	1.91114	.25469	-.237723	.127203
CON_GMP	1.91114	11.86479	-.28875	-.047180	.005202
CON_SRCE	.25469	-.28875	11.78579	-.028555	.002857
Q1	-.23772	-.04718	-.02855	.006171	-.001173
Q2	.12720	.00520	.00286	-.001173	.004516

MULTIPLE REGRESS.	Variables currently in the Equation						
Variable	Beta in	Partial Cor.	Semipart Cor.	Tolernce	R-square	t(200)	p-level
SOURCE	.127931	.101140	.090248	.497650	.502350	1.434105	.153104
CON_GMP	.193246	.207656	.188452	.950998	.049002	2.994632	.003095
CON_SRCE	.080879	.089949	.080176	.982680	.017320	1.274049	.204125
Q1	-.035836	-.029526	-.026223	.535462	.464538	-.416697	.677347
Q2	.435888	.412733	.402259	.851651	.148349	6.392159	.000000

MULTIPLE REGRESS.	Redundancy of Independent Variables R-square column contains R-square of respective variable with all other independent variables			
variable	Toleran.	R-square	Partial Cor.	Semipart Cor.
SOURCE	.497650	.502350	.101140	.090248
CON_GMP	.950998	.049002	.207656	.188452
CON_SRCE	.982680	.017320	.089949	.080176
Q1	.535462	.464538	-.029526	-.026223
Q2	.851651	.148349	.412733	.402259

Trustworthiness (dv9, item 11)

MULTIPLE REGRESS.	Regression Summary for Dependent Variable: Q11 R= .31977199 R²= .10225412 Adjusted R²= .08098052 F(5,211)=4.8066 p<.00035 Std.Error of estimate: 22.983					
N=217	BETA	St. Err. of BETA	B	St. Err. of B	t(211)	p-level
Intercpt			.299618	9.827965	.03049	.975708
SOURCE	.157109	.090735	7.551339	4.361086	1.73153	.084819
CON_GMP	.041888	.066321	2.008683	3.180305	.63160	.528331
CON_SRCE	.101993	.065817	4.911927	3.169700	1.54965	.122724
Q1	-.144368	.086500	-.121056	.072533	-1.66899	.096603
Q2	.326545	.071302	.284149	.062045	4.57972	.000008

MULTIPLE REGRESS.	Analysis of Variance				
Effect	Sums of Squares	df	Mean Squares	F	p-level
Regress.	12695.2	5	2539.030	4.806621	.000350
Residual	111457.8	211	528.236		
Total	124153.0				

MULTIPLE REGRESS.	Correlations of Regression Weights B				
variable	SOURCE	CON_GMP	CON_SRCE	Q1	Q2
SOURCE	1.000000	.117465	.015706	-.640648	.400750
CON_GMP	.117465	1.000000	-.024418	-.174353	.022472
CON_SRCE	.015706	-.024418	1.000000	-.105878	.012382
Q1	-.640648	-.174353	-.105878	1.000000	-.222123
Q2	.400750	.022472	.012382	-.222123	1.000000

MULTIPLE REGRESS.	Covariances of Regression Weights B				
variable	SOURCE	CON_GMP	CON_SRCE	Q1	Q2
SOURCE	19.01907	1.62919	.21712	-.202651	.108436
CON_GMP	1.62919	10.11434	-.24615	-.040219	.004434
CON_SRCE	.21712	-.24615	10.04700	-.024342	.002435
Q1	-.20265	-.04022	-.02434	.005261	-.001000
Q2	.10844	.00443	.00244	-.001000	.003850

MULTIPLE REGRESS.	Variables currently in the Equation						
Variable	Beta in	Partial Cor.	Semipart Cor.	Tolernce	R-square	t(212)	p-level
SOURCE	.157109	.118365	.112944	.516803	.483197	1.73153	.084813
CON_GMP	.041888	.043440	.041198	.967322	.032678	.63160	.528328
CON_SRCE	.101993	.106080	.101081	.982188	.017812	1.54965	.122727
Q1	-.144368	-.114147	-.108865	.568636	.431364	-1.66899	.096596
Q2	.326545	.300690	.298727	.836883	.163117	4.57972	.000008

MULTIPLE REGRESS.	Redundancy of Independent Variables R-square column contains R-square of respective variable with all other independent variables			
variable	Toleran.	R-square	Partial Cor.	Semipart Cor.
SOURCE	.516803	.483197	.118365	.112944
CON_GMP	.967322	.032678	.043440	.041198
CON_SRCE	.982188	.017812	.106080	.101081
Q1	.568636	.431364	-.114147	-.108865
Q2	.836883	.163117	.300690	.298727

Acceptance of referral (dv10, item 12)

MULTIPLE REGRESS.	Regression Summary for Dependent Variable: Q12 R= .18836765 R²= .03548237 Adjusted R²= .01262650 F(5,211)=1.5524 p<.17498 Std.Error of estimate: 23.661					
N=217	BETA	St. Err. of BETA	B	St. Err. of B	t(211)	p-level
Intercpt			70.65202	10.11760	6.983078	.000000
SOURCE	-.008259	.094048	-.39428	4.48961	-.087821	.930102
CON_GMP	.030888	.068743	1.47109	3.27403	.449320	.653662
CON_SRCE	-.005517	.068221	-.26390	3.26311	-.080874	.935619
Q1	-.036231	.089660	-.03017	.07467	-.404095	.686552
Q2	.176474	.073906	.15252	.06387	2.387810	.017831

MULTIPLE REGRESS.	Analysis of Variance				
Effect	Sums of Squares	df	Mean Squares	F	p-level
Regress.	4345.5	5	869.1027	1.552440	.174976
Residual	118124.1	211	559.8300		
Total	122469.6				

MULTIPLE REGRESS.	Correlations of Regression Weights B				
variable	SOURCE	CON_GMP	CON_SRCE	Q1	Q2
SOURCE	1.000000	.117465	.015706	-.640648	.400750
CON_GMP	.117465	1.000000	-.024418	-.174353	.022472
CON_SRCE	.015706	-.024418	1.000000	-.105878	.012382
Q1	-.640648	-.174353	-.105878	1.000000	-.222123
Q2	.400750	.022472	.012382	-.222123	1.000000

MULTIPLE REGRESS.	Covariances of Regression Weights B				
variable	SOURCE	CON_GMP	CON_SRCE	Q1	Q2
SOURCE	20.15661	1.72663	.23010	-.214771	.114922
CON_GMP	1.72663	10.71928	-.26087	-.042625	.004699
CON_SRCE	.23010	-.26087	10.64791	-.025798	.002581
Q1	-.21477	-.04262	-.02580	.005576	-.001059
Q2	.11492	.00470	.00258	-.001059	.004080

MULTIPLE REGRESS.	Variables currently in the Equation						
Variable	Beta in	Partial Cor.	Semipart Cor.	Tolernce	R-square	t(212)	p-level
SOURCE	-.008259	-.006046	-.005938	.516803	.483197	-.087821	.930102
CON_GMP	.030888	.030918	.030379	.967322	.032678	.449320	.653660
CON_SRCE	-.005517	-.005568	-.005468	.982188	.017812	-.080874	.935618
Q1	-.036231	-.027808	-.027321	.568636	.431364	-.404095	.686550
Q2	.176474	.162207	.161441	.836883	.163117	2.387810	.017827

MULTIPLE REGRESS.	Redundancy of Independent Variables R-square column contains R-square of respective variable with all other independent variables			
variable	Toleran.	R-square	Partial Cor.	Semipart Cor.
SOURCE	.516803	.483197	-.006046	-.005938
CON_GMP	.967322	.032678	.030918	.030379
CON_SRCE	.982188	.017812	-.005568	-.005468
Q1	.568636	.431364	-.027808	-.027321
Q2	.836883	.163117	.162207	.161441